Gleanings in Bee Culture

September, 1948 Vol. 76, No. 9

A Method of Wintering

Used Successfully in New York and Pennsylvania

By Geo. H. Rea, Reynoldsville, Pa.

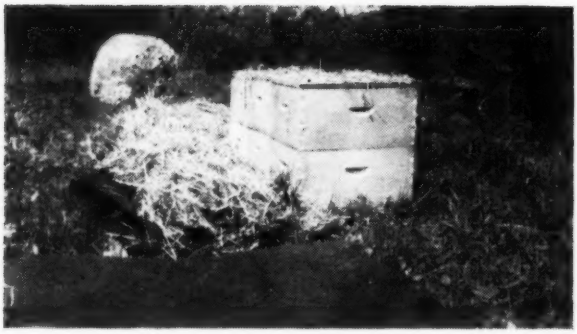
It would take too much time and space to discuss the many winters when bee losses were heavy but some can remember the winters of 1934-'35, 1939-'40, and most of all last winter 1947-'48. Such records should convince any one that on the whole beekeepers know all too little about how to winter bees successfully. It would be folly, however, to try to explain all of the factors pertaining to successful and unsuccessful wintering of bees. We find so many results at variance with the results obtained by others who have tried the same methods of wintering. There does, however, seem to be a consensus of opinion that certain favorable factors must maintain if bees are to come through strong and ready for rapid spring brood rearing.

All agree on prolific queens in the fall to produce a cluster of young bees for winter; stores in abundance of high quality honey and plenty of pollen; and protection especially from severe winds. From here on the matters of size of entrance; top entrance; middle entrance; bottom entrance; ventilation or no ventilation; packing or no packing and how heavy if used, are all in dispute while winter losses continue right along. Why repeat these unfortunate experiences if there is a way out?

When adequate packing of colonies follows a rather consistently successful pattern, year after year, regardless of the severity of the winters, it would seem worthy of more consideration than it receives. By referring to some of the reports of last spring as found in the bee journals and the U.S.D.A. semi-monthly reports it will be found that in various sections of the North, adequately packed bees fared better than others. Some of these statements are to be found as follows: Edwin J. Anderson, Pennsylvania beekeeper, March, 1948, page 16; Charles Mraz, Gleanings in Bee Culture, March, 1948, page 158; Bruce Morehouse, Gleanings in Bee Culture, page 305, May, 1948, issue.

Adequate Packing Seems Essential

It has been our experience in packing our own colonies, and checking on hundreds of colonies adequately packed by other beekeepers over a period of more than 25 years in beekeeping extension work, that in various parts of Pennsylvania, and in New York from Long Island to the Canadian line, the bees have shown an almost invariable pattern of successful wintering. This pattern has been consistent even in areas where the honey is usually mostly goldenrod and wild aster and with little or no sugar feeding. We have found plenty



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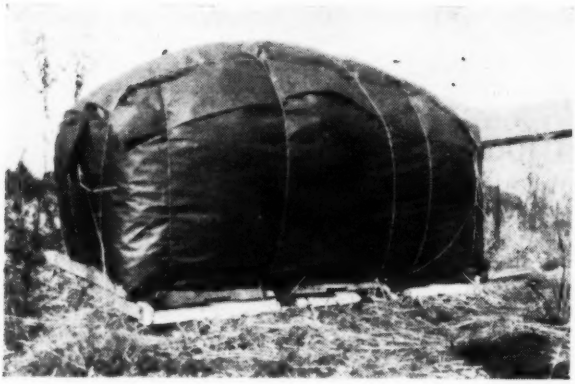

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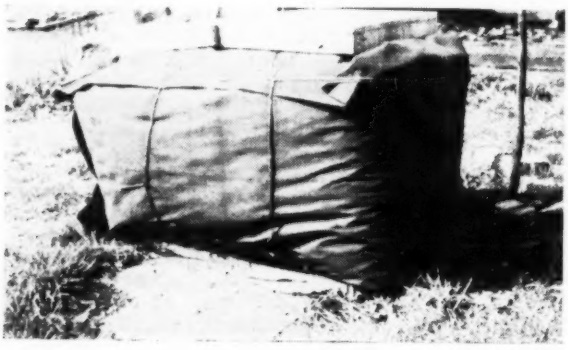

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of evidence that the bees in adequately packed hives consume less honey, are at all times surrounded by comparatively dry warm air, and move freely to combs full of honey when the honey within the cluster is exhausted.

Our experience tells us that an adequately packed hive is one that has insulating material on all sides, top, and bottom. To be adequate to meet the demands of the most severe winters the packing must be of light, dry material and kept dry all winter and thick enough so that moisture will not condense inside the hive. When preparing the colonies for packing, the inner cover is sealed down tight by the bees, and the bee escape hole is covered by a piece of section sealed down. When packed, the colony entrance consists of a notch in a piece of lath, about ⅜ inches deep and 4 inches long. Thus at top and bottom there is a minimum loss of heat by air currents. (See pictures 1 and 2.) For materials we use light weight roofing or siding paper, dry shavings or fine straw and chaff, some pieces of plasterer's lath, binder's twine, and 6d box nails. The paper and lath may be cut to right lengths in the shop and the twine should be on a reel in readiness for packing. The straw may be delivered on a truck to near the hives. Two or three colonies make a convenient pack. More than three give trouble by the paper sagging too much. The colonies, minus outer covers, are placed tight together on a heavy mat of four or five inches of straw on the ground. The straw packs under the weight of the hives and provides effective bottom insulation.

Method of Applying Packing

The long piece of paper is placed on edge, on the ground, the whole way around the group of hives and must lap over the full length of the

hive to allow space for packing. It is fastened all around to the bottom boards by pieces of lath nailed on by 6d nails driven half way in. The pictures show how the lath restricting the entrances and holding the paper are fixed. A bulge must be allowed in the paper at each corner to provide corner packing. This is essen-

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tial to successful wintering. The material must be packed in carefully and yet solid enough so that it will not settle during the winter and leave empty spaces. **It pays to pack well. Poorly applied packing may be worse than none.** We use four to six inches of packing on the sides and eight to ten inches on the top. The top should be higher in the middle to make a water

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shed. After the cover paper is placed, the twine is tied to the projecting nails and drawn so tightly that it will remain that way all winter. One end is looped over a nail at the point of beginning and carried over and wound around a nail on the opposite side as shown in the pictures, until completed. We sometimes place the outer covers on top of the complete pack for additional protection, picture 3.

Late winter brood rearing is retarded but speeds up rapidly later on, and colony strength reaches its peak in plenty of time for orchard pollination and the clover honey flow. Winter flights seem not to be essential for weeks or even months in one stretch. This has been noted in many cases in the East where cloudy skies and low temperatures prevent flights over long periods. An outstanding example was found in the bees at Chazy Orchards during the severe winter of 1934-'35 when bees were confined from the middle of October until the middle of March — five months — with no bad results. Of the 320 colonies packed for winter, five were found dead the next spring and they seemed to have been queenless the previous fall. Temperatures ranged as low as minus 50 degrees F. These colonies were very strong when used in the apple orchards for pollination in May and they later produced 200 to 300 pounds of honey per colony that summer in what was regarded as a poor honey location. Picture 4 shows the late George Rasmussen and a helper packing the bees while picture 5 shows part of the same apiary completely packed.

Because of the protecting bulge in the insulation above, the hive entrances never clog with snow or ice. The bees constantly throw out the dead and in the spring the bottom boards are found to be dry and clean. If any mould is found it is never more than a very small amount at the corners of the bottom boards. Seldom is any mould seen even on the bottoms of the combs.

B & Z Library

There is No Magic in Advertising

By Geo. C. Nagel, St. Louis, Mo.

It is my suspicion that there are few things in human industry which have as broad a scope as has advertising, and about which there are so many misconceptions. Time and again I have had business executives complain they prepared and sent out sales letters, and in return couldn't accord to the effort enough sales to pay the postage. I have astounded some by telling them merely to put the last paragraph of their letter at the beginning and the appeal would be improved. That is merely a little trick that sometimes works, but effective advertising as a lifelong study generally fails in the hands of novices, and it is not always successful when directed by experienced counselors because there are so many elements over which one can have no control that may be responsible for success or failure.

That advertising can help move products profitably from manufacturer to consumer is not a fact to be questioned. The advertising bill for American Industry in 1948 has been conservatively estimated at five billions of dollars. At this particular time it is quite appropriate to discuss advertising with the producers and packers of honey, when the National Federation is in the midst of releasing a campaign. I am viewing the effort with much askance. The money at hand to pay for the initial test campaign is extremely limited. We can just about scratch the surface in one metropolitan area before the funds are exhausted.

Too often, too much is expected from too little. I sense a feeling of satisfaction in the industry that the Federation is fostering an advertising campaign. Those who expect the campaign will move large volumes of honey onto the tables in thousands of homes in the municipality where the advertising will be released are going to be disgruntled. Advertising doesn't function like a vending machine, into which you drop your nickel and out comes a pack of your favorite chewing gum. Many influences over a long period of time must be exerted.

Time and again we come in contact with business men — often those who out of their own experience should know better—who want to "run an ad" to find out if advertising will be helpful in the promotion of their business. One experienced in advertising knows beforehand what the result will be. Nothing will result. It's pretty much like a sick man who took one spoonful of the medicine prescribed by his physician, and not having his pains alleviated, assured himself the medicine wouldn't cure him. The proper routine would be to keep taking the medicine — even better would be attacking the illness before it became acute.

Generally speaking, honey has been an unadvertised product. Surveys I have caused to be made in some of our larger cities reveal that no honey advertising has ever appeared. Some daily papers report to me they carried a few advertisements from some of the leading honey packers.

It must be remembered that our newspapers, our radio programs, our national magazines, are practically glutted with advertising calling attention of the housewife to innumerable food products in an effort to get her food dollar. She buys the products she is in the habit of buying, and those she is constantly invited to buy. The result is she doesn't buy honey. The millions of pounds of the 1947 pack remaining unsold attest that fact.

In order to secure consumption for honey we must get it on the shelves of the stores the housewife frequents. Storekeepers have been, and for some time will continue to be, reticent to stock honey in sizable quantities. The packers' salesmen or representatives will report storekeepers tell them that they have but few calls for honey, that it doesn't move out well, that the turnover is too long. That is always the case with unadvertised products.

This industry must recognize that store distribution must be developed before the advertising to the consumer can meet its greatest response, and especially with a product like honey which has not previously received any genuine, active, and enthusiastic advertising, most storekeepers will be slow to respond to

the appeals of packers' representatives. As he sees the advertising appear in his local paper and, if he is not now carrying honey, he receives an inquiry or two from his customers, the storekeeper will be more responsive to the appeals made to him to stock the product.

I suspect the farmer can comprehend the functioning of advertising more quickly than the inexperienced business man. The farmer, plowing his soil at the break of spring and sowing the seeds as early in the year as possible, well knows he must wait long months, and not without regular cultivation, before he can expect his harvest.

All this leads to the conclusion that the proposed advertising campaign on honey will be the least effective at the onset. Once it is started it will have to be continued without interruption to become profitable. The reader of a newspaper isn't seeking a message that will sell her to the point of action to go out and make a purchase, unless she previously recognizes the need or has the desire for the commodity. We must create that interest over a period of time. We must employ numerous copy angles. We must make our advertising interesting. It must tell a story. Merely the message, in substance, "Buy honey and feed it liberally to your family" won't turn the trick. In unhurried fashion we must enveigle the housewife to a state of mind that causes her to put honey on her shopping list.

No, there is no magic in advertising. It works. It sells goods. It pays. But, it must be treated delicately; it must be pursued with tenacity. It must be released with faith that it never fails when applied to products of merit with enthusiasm and conviction.

A robin sits on her eggs but two weeks. The chicken must spend 21 days at the job. But the turkey hen must remain on her nest for a whole month. How long will it be before the industry feels the effect of the first campaign fostered by the Federation? Don't guess. No one knows. Enough to say it won't be a week or two hence.

Boosting Beekeeping at Los Angeles County Fair

Prominently located in the magnificent new palace of agriculture, the apiary department of Los Angeles County Fair in Pomona Sept. 17 to Oct. 3 promises to be one of the feature attractions. Under the direction of George Adamson, veteran apiary showman of southern California, there will be a comprehensive and tempting display of bees and their products. The entire exhibit will be enshrined in a magnificent setting worthy of the importance of the industry.

It is expected that a million people will view the array of entries. Over $2,000,000 has been spent in reconversion and construction in preparation for the event. Once again Los Angeles County Fair will be the largest in America.

The apiary division is divided into 38 major classifications as shown in the premium book now being mailed out. In the first class four prizes will be offered for the most attractive, comprehensive, and educational display by a bee club or an individual. The next class is for honey specimens both extracted and in the comb. There are a number of sub-classifications under this heading for the various kinds of honey.

Another division is given over to beeswax. There are two classifications for bees. Under miscellaneous there are a number of classifications covering culinary products in which honey is used. These include baked goods, candies, and preserves.

From interest being shown it is expected that there will be one of the finest apiary displays ever shown on the coast and certainly there will be the largest audience ever to see such a display. Superintendent Adamson is also arranging several interesting features in keeping with the fair's theme centennial, "One Hundred Years of Progress". — From Los Angeles County Fair, Pomona.

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Lorenzo Lorraine Langstroth

By Dr. E. F. Phillips

Address at dedication of memorial tablet at Second Congregational Church, Greenfield, Massachusetts, on July 18, 1948.

Lorenzo Lorraine Langstroth

We meet on this Sabbath afternoon in this place dedicated to worship to pay honor and tribute to a man whose purpose in life was to help others, Lorenzo Lorraine Langstroth. We are here because we who have honey bees as our chief interest desire to place in the custody of this congregation material evidence of our appreciation of the eminence of the man. This church building stands as a symbol of the work which he considered his most important contribution to humanity. We beekeepers are joined in this ceremony by residents of this community of which he was once a beloved citizen. Whether the primary interest of each one of us is with Langstroth's contribution to beekeeping or with his participation in the religious life of Greenfield community, we share the desire to pay homage to a good and great man. In all likelihood, while he lived in Greenfield nobody considered him a great man, but his associates must have discerned him as good. Recognition of his greatness was a slower growth: it arose from the ever-increasing benefits received by those who profit most from his inventions and from his writings, as beekeeping was enabled to develop into an important industry. Many persons are good, but few are great. Langstroth qualifies on both counts.

Lorenzo Lorraine Langstroth's first pastorate was in South Church, Andover, Massachusetts, from January 7, 1836, to March 30, 1839. After a brief interval, due to poor health, and later as principal of Abbot Academy, Andover, he became temporary pastor of the Second Congregational Church of Greenfield for about two years, and then became its regular pastor December 20, 1843. His original purpose in coming to Greenfield was to serve as principal of a high school for girls, to which post he was appointed in the spring of 1840. This school was located in the residential building often called Hollister House immediately adjacent to this church, erected in 1796 by the builder Asher Benjamin, a native of Greenfield, whose work with Daniel Raynard gave vogue to the late colonial residential achitecture so prevalent in that period. It was while conducting this school that he assumed the additional calling of the temporary pastorate of this congregation. His formal relationship with this church congregation was maintained until 1848, when once more he was forced to relinquish his chosen life work by the recurrence of ill health. Langstroth did not preach in the building in which we are met but in the church edifice that stood earlier on this site. Greenfield was important in his life.

Lorenzo Langstroth was born on Christmas Day, 1810, in Philadelphia, where his grandfather Thomas Langstroth had settled. The first American Langstroth came from Yorkshire, England, a little over 40 years before the grandson's birth, coming from a small valley still known as Langstrothdale. Thomas when 21 years of age came to Philadelphia on business for his grandfather, arriving on the good ship

Glory in the autumn of 1767. By the time that his business was brought to a close, Thomas had abandoned the idea of returning to his home in the West Riding of Ribblesdale. He liked Philadelphia and a few years later near that city he established a mill for the manufacture of fine papers, one of the first of its kind in the colonies. Since there was some partiality in favor of paper from the home land, it was several years before Thomas Langstroth thought it well to devise a water mark for his product. He was also a skilled gardener and he once entertained General Washington to exhibit his prowess with plants. Even among his Quaker neighbors he came to be called the peacemaker.

Young Thomas Langstroth married Anna Youck (Anglicized George) whose parents had come from Prussia to Germantown, and thus the American Langstroth family was established. They had 12 children, of whom four died in infancy. Their fourth son, John George Langstroth, took on his father's business and became the owner of two paper mills. He in due time marreid Rebecca Amelia Dunn of Chestertown, Maryland, of a slave-holding family who freed their slaves because of the teachings of John Wesley.

Although a moderately complete family story is available, our concern today is for a single member of the family. John and Rebecca Langstroth lived at 106 South Front Street, Philadelphia, between the Delaware River and Independence Hall, and here their eight children were born. The second child and the oldest son was Lorenzo.

Lorenzo was in some respects a strange child, for while he engaged in most of the usual activities of a boy of the period, he developed an early interest in insects. His family thought this not an activity to be encouraged, and gave him no help with this interest. Among recollections of his childhood was an abundance of that strange insect, the Cicada, often known as the 17-year locust. When as a grown man he told of watching Cicadas shed their skins, he had forgotten in what year it occurred, but entomologists have since learned to map and to trace back the various broods of Cicadas, and we can be sure that Langstroth at that time was seven years old. Another Cicada brood appeared in the Philadelphia area when he was eleven, and this he also watched and played with.

As a boy he entered the preparatory school of the University of Pennsylvania and began the study of Latin. Here he committed to memory hundreds of verses of Vergil, most of which he never forgot. When he asked his grandfather for help with his Latin, the older man became so interested in reciting the Latin verses himself that his grandson got little help from him, except perhaps a desire to equal his grandfather's skill.

There is a temptation to linger with details, but we must hasten on. At the age of 17, Langstroth entered Yale University, having been examined for entrance in Cicero, Vergil, Sallust, the Greek Testament, Latin, Greek, and English grammar, arithmetic, and geography. This is no occasion for us debate the relative merits of the preparation for college of 1827 and of 1948, but at least we may be certain that boys then worked hard to get into college. But the worst was yet to come, for in college he studied more Latin and Greek, Hebrew, a modern language or two, higher mathematics including navigation and surveying and of course rhetoric, Moral Philosophy, Natural Theology, Philosophy of the Mind, Evidences of Christianity, and Political Economy. There were at that time some lectures at Yale in chemistry, minerology, geology, and astrology, some of which Langstroth attended. Daily composition was required for two years and senior students engaged in "forensic disputation", which perhaps accounts in large measure for his later exceptional skill as a writer and as a public speaker. Attendance at prayers was required of students twice daily, and of course church attendance on Sunday, all at the college chapel unless special permission was granted to attend some local church. Langstroth's scholastic standing is indicated by the fact that he was elected to Phi Beta Kappa.

It would be footless debate to discuss whether the courses that Langstroth took at Yale were such as best to fit him for his later career, and all we need to conclude is that he learned to use his head. For his

studies as a clergyman, the courses were perhaps as good as were available; as a beekeeper, not so satisfactory. He surely got little useful training in the fields of insect behavior and physiology, for a study of William Paley's Natural Theology, devoted almost exclusively to a search for design and purpose in a single act of creation, was not helpful. For that matter there was nothing in all of Langstroth's writings to indicate that he was even aware of that battle of the biological giants which occurred in the years of his greatest activity over the question of evolution as a method of change in nature. He was not a biologist or an entomologist. Langstroth's life was singularly devoted to his ministry and to a study of just one insect.

Before graduation in 1831 Langstroth came under the influence of Peter Parker, a transfer from Amherst College in his senior year, who awakened a noteworthy religious movement at Yale. Among those affected by this movement were many students who became prominent in later life. Langstroth was Parker's first convert, and because of this change in his outlook, he determined to dedicate himself to the Christian ministry. In the spring just before graduation he joined the College Congregational Church. After graduation he entered the Yale Divinity School, planning to support himself meanwhile by teaching. The labor necessitated by teaching caused him to discontinue his academic work in divinity, but in 1834 he returned to Yale as a tutor in mathematics, where he remained two years.

Early in 1836 opportunity arose for him to be considered for the pastorate of South Church, Andover, and in January of that year he was selected as its pastor. His stay in Andover was brief, for a malady that he always called his head trouble took possession of him, and he was forced to sever his relations with that church. Later with the mellowing of maturity he recorded his fear that his sermons at Andover contained more law than gospel. At Andover he experienced a memorable meeting with Rev. Lyman Beecher, then of Cincinnati, who had come east to try to persuade young men to go back with him for ministry in the West.

Langstroth's head trouble requires a word or two of discussion, sorry as the tale may be. There seems no better way to describe this affliction than to do it in the words of the victim himself. "For many years I have suffered from what I have been wont to call my 'head trouble', which not only unfits me for mental exertion, but also disqualifies me for enjoying almost anything personal to myself. While under its full power, the things in which I usually take the greatest pleasure are the very ones which distress me most. I not only lose all interest in bees but prefer to sit on that side of the house where I can neither see nor hear them. Gladly, if at all convenient, I would have my library of bee books hidden from my sight; and often I have been so morbid that even the sight of a big letter B would painfully affect me. I have for years read less and less, and occupied my time mainly with chess, which is too impersonal to suggest the melancholy ideas which so often torment me when reading." When we realize the sad loss of time and the suffering due to this ailment, one must be surprised that in the well intervals Langstroth could accomplish so much.

Since it was in beekeeping that Langstroth won renown, we must come to that phase of his career. While at Andover he bought two colonies of bees, and after trying in vain to learn more details of their care, he obtained a copy of a small book published in 1831 by Jerome V. C. Smith. The copy which he owned is probably still in existence. Later he bought a copy of Bevin and also a Huber but remained ignorant of the earlier efforts to devise a workable hive by Morlot and other German and French beekeepers. On moving to Greenfield in 1840, almost his first purchase was a colony of bees in a section of hollow log, but during the first Greenfield experience he was so busy as to have scant time for the bees.

From Greenfield, after giving up his pastorate in 1848, again because of ill health, he moved to Philadelphia and established himself at the corner of Chestnut and Schuylkill Streets. Here he had a second story veranda and several spare attic rooms, and in these he established a city apiary. Later he moved the bees across the Schuylkill River to a

location approximately where the University of Pennsylvania is now situated. In 1851 he took first prize at an exhibit of the Philadelphia Horticultural Society for specimens of comb honey in glass.

Those who now keep bees often fail to realize the difficulties of the task with hives in which combs cannot be handled. Langstroth tested the Huber leaf hive and the Bevan bar hive, but in both, propolis or bee glue made it almost impossible for him to handle the bees suitably. Finally in an effort at least to be able to get the covers off his hives so he could get at the bars, he placed narrow strips of wood along the top of the hive under the cover, hoping that these would enable him to get at the combs with less effort. To his utter amazement the bees did not build comb nor deposit propolis in this space, and part of his troubles was solved.

Throughout the season of 1851 Langstroth used hives with this space, now called a bee space, over the bars, meanwhile pondering the problem of devising some plan to get the combs out of the hives without cutting them loose from the sides. After spending all day October 30, 1851, in his apiary laboriously shifting combs in preparing the bees for winter, as he drove his faithful old horse home it suddenly flashed upon him that if a space equal to that at the tops of the bars could be left at the sides of the combs, his problem would be solved. In short, the need was for frames suspended from rabbets at the top of the hive with a bee space all about them. Small wonder that when later writing about this he said: "Seeing by intuition, as it were, the end from the beginning I could scarcely refrain from shouting out my 'Eureka' in the open streets."

Visiting him at the time was his college classmate, Rev. E. D. Sanders, later founder of the Presbyterian Hospital in Philadelphia, who took an interest in bees. That evening until a late hour they discussed the presumed advantages of a movable-frame hive over the former bar hives. After Sanders had retired Langstroth got out the faithful Journal in which he recorded his observations on bees and into this he wrote a record of the entire plan. In this Journal, now a treasured item in the beekeeping library at Cornell University, may be found what he wrote that October night, duly dated, and with the sketches. On subsequent days he wrote additions to his thinking, each item dated. In this account written that very first night, he places on record what he thinks will follow the use of his discovery, a remarkable forecast of modern beekeeping, possible only by a wise and experienced man. It seems virtually certain that at some time some other beekeeper had left a shallow space in a bee hive in which the bees had not built comb nor deposited propolis. It took a Langstroth to see the significance of the observation, and therein lay his greatness.

Imagine if you can the feelings of the inventor, convinced of the vital nature of his discovery but unable to test his ideas in the apiary until spring. In the spring of 1852 he moved his bees to a new site, added a number of colonies purchased in ordinary hives and placed a skilled beekeeper and cabinet maker, Henry Borquin, in charge. Before spring Bourquin had made pieces of wood suited to converting the former hives to the new type and on the first good day they changed over. During this procedure an old beekeeper friend entered the apiary and called out to Langstroth, but Langstroth was so occupied that he paid no attention to the shouts. Finally the old Quaker beekeeper touched him on the shoulder and said, "Friend Lorenzo, you are so taken up with your new hive that you seem unable to hear me, or to see anything else. No doubt you think you have made a great invention, but I say you have made no invention . . . Friend Lorenzo, you have made no invention at all, but rather, a perfect revolution in beekeeping!"

Application was made for a patent January 6, 1852, which was granted October 5 of the same year. He then sold the good will of his Philadelphia school to give up teaching, evidently proposing to devote his entire time to bees. Before the end of the summer and before the patent was issued, his old head trouble returned and, being unable to manage the apiary, it was sold. By the time that the patent was obtained his health returned and he then decided to go back to Greenfield, where he

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Lorenzo Lorraine Langstroth
Dec. 25, 1810 — Oct. 6, 1895
Pastor of the Second Congregational Church, Greenfield, Mass., 1843-1848.
Inventor of the movable-frame bee hive which made modern beekeeping possible, 1851.
Scholar, Observer, Author, Friend of mankind.
This tablet is erected as acknowledgment of the debt of beekeepers of the world to his skills and unselfish leadership.
July 18, 1948
Photo by H. A. Hansen, Pearl River, N. Y.

hoped to persuade friends to provide capital for introducing the new hive. Meanwhile he decided to write his book, and in a few weeks in 1852 he wrote this important volume. It was published in Northampton by the firm Hopkins, Bridgman and Company in 1853.

Leaving his wife and children in Philadelphia for a time, Langstroth went to Greenfield in November, 1852. He made his home with his sister Margaretta and her husband, Almon Brainard, a substantial citizen of the community. It was his hope that he might find some person enough interested in the invention to provide the funds essential to its introduction. He found this support in Dr. Joseph Beals, a dentist and a former parishoner, and to Dr. Beals went a half interest in the patent. Among the many treasures in the beekeeping library at Cornell University is a copy of the first edition of Langstroth's book that was presented to him by Dr. Beals several years after its first appearance. The two proprietors of the patent sold to Roswell C. Otis, Kenosha, Wisconsin, the patent rights for the western states and territories. The Langstroth book appeared just about the time that the partnership was completed.

Residents of Greenfield may be interested in knowing where Langstroth's bees were kept during his stay in the community. This is not entirely certain, but at that time an apiary of some size was kept on the top of the small hill north of this church, just where the Boston highway turns eastward. A search of the records might make this more certain, and it would be appropriate to run down the exact spot and mark it suitably for the information of those who pass this way.

There being no manufacturers of beekeeping supplies at that time, rights to use the new hive were sold to a considerable number of men who later became prominent in beekeeping: W. W. Cary of Colraine, with whom Langstroth worked in close cooperation, Richard Colvin of Baltimore, who assumed responsibility for one of the third editions of the Langstroth book and who did much to advance the use of the new hive, Charles Dadant, Hamilton, Illinois, who with his son later assumed responsibility for the revision of the Langstroth book, and did much to make the Langstroth hive known in France, Italy, and ultimately throughout the world, Adam Grimm of Wisconsin who was one of the earliest successful commercial honey producers, and Moses Quinby, St. Johnsville, New York, the father of commercial honey production. A Langstroth hive on the original design made by Colvin is preserved at Cornell University.

(To be continued)

3,371 Listeners Answer the Call!

Announcer Norm Barry has discovered that making a small request definitely gets results, when that request is heard coast-to-coast. On the July 25th R.F.D. broadcast, he announced that contestants appearing on the following week's show would be coming in from the Beehive State of Utah, and dropped the hint that the program would appreciate some questions sent in about bees. Result: the R.F.D. AMERICA office has received to date 3,371 bee questions— and they're still swarming in!—From R.F.D. News Release, August 10, 1948.

Honey Goodies for the Lunch Box

By Mrs. Benj. Nielsen

Honey ginger wafers and refreshing honey - sweetened lemonade for the lunchbox or after-school snack.—Photo courtesy Kellogg Co.

Vacation is almost over. And how fast it went! Sizzling hot days give way to mellow golden ones with crisp mornings and faintly chilly evenings. Once more our thoughts turn to lunchbox preparation or the after-school snack. Let's make good use of the golden sweet that the industrious little bees worked so diligently to gather all through the hot summer days.

Sandwiches, cookies, and an appetizing drink are mainstays of the lunchbox. In the preparation of all three, honey affords some superb taste treats. Occasionally the children will welcome a sweet sandwich filling for a change. In a jiffy you can mix liquid or granulated honey with peanut butter — the chunk style peanut butter is especially good for this filling; or stir finely chopped walnut meats into honey for another tempting quick-energy (honey) and protein - rich (body-building) combination. Sweeten the cocoa or chocolate with honey to taste and pour it steaming hot into the vacuum bottle. Give them honey-sweetened lemonade for those few hot days that still crop up now and then. Tuck in some honey-made cookies or bars and a crisp apple and you have a lunch box packed full of health-promoting goodness.

And in case you do not pack a lunch box any of these suggestions are grand after-school snacks when Susie or Johnny comes dashing in with "Hey, Mom, I'm starved! What's to eat?"

Honey Ginger Wafers

Two cups bran, 1 cup honey, ¾ cup melted shortening, 2½ cups sifted flour, ½ teaspoon salt, 2 teaspoons soda, ½ teaspoon allspice, and 1½ teaspoons ginger.

Soak bran in honey 10 minutes; add shortening. Sift flour, salt, soda, and spices together; stir into honey mixture; mix well. Knead and shape into rolls about two inches in diameter. Wrap in waxed paper covering ends so that dough will not dry out. Chill in refrigerator until firm. Cut in thin slices and bake on ungreased cookie sheet in moderate oven, 350 degrees, 8 to 10 minutes. Yield: 5 dozen wafers (2½ inches in diameter).

Honey Fruit Bars

One-fourth cup shortening, ½ cup sugar, 1 egg, ½ cup honey, 2 cups sifted flour, ¼ teaspoon soda, ¼ teaspoon salt, 1½ teaspoons baking powder, ½ cup milk, 1 cup raisins, and ½ cup broken nut meats.

Combine shortening and sugar gradually. Add egg and honey and mix well. Sift flour and resift with soda, salt, and baking powder. Add sifted dry ingredients alternately with milk. Beat until smooth and add raisins and nut meats. Pour into greased baking pan 9 x 13 inches. Bake 25 to 30 minutes in a moderately hot oven, 375 degrees. Cut in bars. Roll in powdered sugar if desired.

Aurora, Nebr.

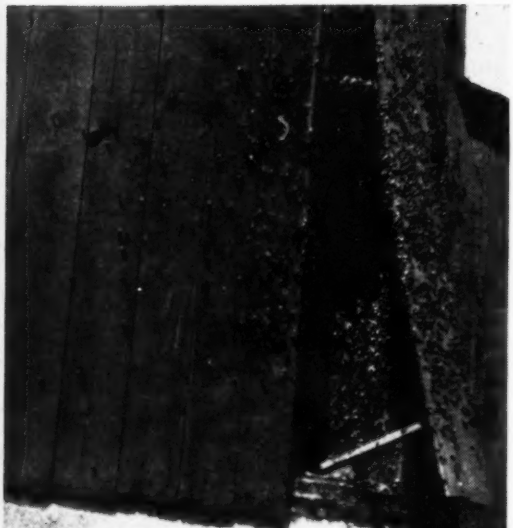
XUM

The Doctor Catches a Bee

By Dr. Derk Stuive, D. C.
Hastings, Michigan

One Sunday morning a son of a neighbor, who raises saddle horses, rode by and asked if I would remove a swarm of bees that had alighted on the side of one of their

Fig. 1

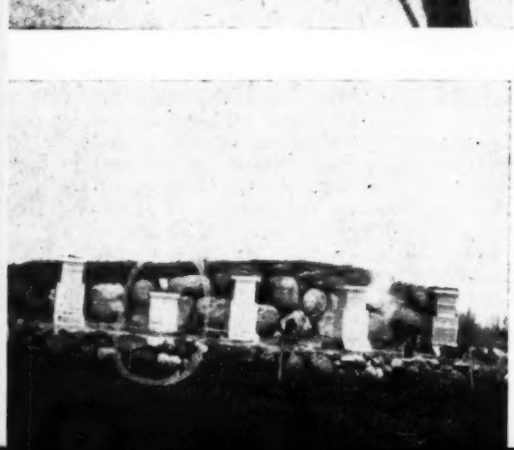


barns the previous night. Having noticed our bee yard he figured we could remove the bees for him. Wanting another hive of bees and the bee shipments being late this year (it being the latter part of May) I decided to help him as well as myself.

I gathered up an empty hive body, super, top and bottom boards, and put them into the car, lighted the smoker, and started for the barn and bees. I had called up a couple of the boys and asked them if they wanted to go along but they didn't relish the idea, so I started out alone.

When I arrived at the barn with my carload of paraphernalia the entire family and their city visitors were on hand to watch the man catch the bees. At first they wanted a close-up view but as soon as one girl had a few of the bees get in her hair the rest of the watchers left

Fig. 2



me a clear field and lost their interest.

When I looked the situation over I saw that it was not a loose swarm as I had been told but a permanent home of the bees. I later found that they had been there several years.

Fig. 1 shows the location of the bees in the east side of the barn to the left of the window. They had a large knot hole for a top entrance and a small crack for a bottom entrance. They were Italian bees and

Fig. 3

quite actively bringing in red and white pollen. Being an amateur beekeeper I didn't relish the idea of digging them out of a home in which they seemed to be well established. But having many spectators and having said that I could and would remove the bees, I started to work. I pried one of the boards loose at the bottom and out came what seemed like half a million bees. Fig. 2 shows the second board being removed. The air meanwhile was black with bees. Most of them didn't like the idea while the others didn't seem to mind too much.

A space about six feet long, two feet wide, and nine and a half inches deep was full of comb. I cut the combs which hung vertically in the space into 18-inch sections. As I examined the pieces of comb I placed the chunks with brood into the hive. Those that had honey or were empty I placed in a large wash tub. When finished I shaded the hive and wash tub and went home to lunch. Not having found the queen bee I figured that wherever the queen was would be where I would find most of the bees when I returned. I returned several hours later and nearly all the bees were in the hive. I replaced the boards on the side of the barn, plugged the entrance of the hive with grass, loaded it on the back of the car, and hauled them home. Fig. 3 shows them at home, second hive from the left. I had when finished a hive body and super full of bees, brood, pollen, and honey stores; 30 pounds of honey in the comb plus beeswax from the empty combs for myself, and the experience.

The hive into which I placed the bees had drawn comb. I made a mistake when I installed the bees in the hive. Instead of cutting the brood comb and fitting it into frames and tying them with string as the books instruct, I just removed some of the frames of drawn comb and set the cut combs in the hive without the frames as I didn't want to cut the good comb out of the frames I had in the hive. Ten days later the state bee inspector and I opened the hive. Now I can see the wisdom of tying the comb into the frames. The books don't mention why the comb should be tied into the frames. The bees had built onto and into the old comb which had sagged. It looked like a mixed up mess and couldn't be moved or removed without tearing it into bits. But the colony was still strong and had half-filled the super with honey so I decided to leave the old combs as they were and remove them in the fall, as long as the bees seemed to be happy and working well.

The experience of gathering the swarm of bees was well worth the effort. I obtained a hive full of bees, honey to eat, and gained a friend by removing the bees from his barn and away from his horses. After working with those bees and then later opening a regular hive at home there seemed to be only a spoonful of bees by comparison. I suggest to those who have their doubts about handling bees that they go along with someone on a trip of this kind or go it alone. After that they will have no fear of handling bees.

A couple of weeks later I had a call from another neighbor, a woman who had bees in the side of her house and had had them for several years. Fig. 4, the dark spot on the upper left of the window is the entrance. I gathered up my paraphernalia and went over to catch more bees. The bees had swarmed in the meantime on the limb of a maple tree. I carefully climbed the tree, cut the branch which was a small one, and started down with the cluster of bees which was quite large. On the way down when near the ground I let the branch slip. The bees hit the ground and bounced back into the air flying. They filled the air under the tree. The lady of the house came out and said, "My grandfather used to beat pans to make them cluster; have you ever tried it?" "No", sez I. "Science claims it can't be done, but who am I to argue as to what your grandfather could do. Especially after science said that according to the law of aerodynamics the bumblebee can't fly. Give me the pans and I'll try it." I started to beat the pans together and much to my surprise they started to form a cluster on a lower limb about six feet above the ground and along the limb. When quite a cluster had formed on the limb I moved the hive body under the cluster. I removed two frames from the hive body, bent the limb over the space and with a quick jolt they fell into the space and all over

XUM

Fig. 4

the combs. I beat the pans several times and kept shaking bees. I replaced the frames and shook more bees into the super. I put on the inner cover over the super and sat down and waited. Soon the bees started fanning at the inner cover opening and at the bottom entrance. When all the bees were in the hive I put on the top cover, plugged the entrance with grass, placed the hive on the rear of the car, and drove them home. These bees too were installed on drawn comb in a hive and went right to work the following day and are doing nicely. The main colony is still in the side of the house. I may try the funnel and carbolic acid method to remove them and then cut into the side of the house for the honey and brood, if I can get some more hive bodies.

There are many swarms of bees in Michigan settled into barns and buildings, as there must be in other parts of the country, which the beekeeper can have for the taking. Most of the boys I have talked to seem to be afraid to tackle the job. Besides being fun, getting additional bees, beeswax, and honey, it removes bees from locations where they never would be inspected. In your hive they'll work for you.

Honey and Pollen Plants Committee

This picture was taken during the annual meeting of the Honey and Pollen Plants Committee on July 12, 1948, at Lincoln, Nebraska. Left to right: Glenn O. Jones, Sec.-Treas. of the National Federation, Atlantic, Iowa; Dr. A. E. Schwarting, University of Nebraska; Woodrow Miller, President of the National Federation, Colton, California; R. B. Willson, Chairman of the Honey and Pollen Plants Committee, New York City; M. J. Deyell, Editor of Gleanings in Bee Culture, Medina, Ohio; Frank C. Pellett, test gardener of the American Bee Journal, Atlantic, Iowa; and Clifford Walstrom, who operates 900 colonies of bees at Omaha, Nebraska.

Live and Learn

By Propolis Pete

Last spring I wrote about a new twist on the Demaree system of swarm control that I had thought up over the winter, and promised to let you know how I made out with it. Well the answer still is "I don't know".

The way things broke with me this past spring prevented me from giving it the tryout that I think it deserves. Like a lot of the rest of the country, we had a cold, wet, and miserable spring. On top of that a series of incidents in the factory where I work saddled so much more onto me that it was Memorial Day before I had a chance to take a look at my bees. By then it was too late. One of the colonies was gone. I mean disappeared. No bees. No honey. No pollen. Only the empty hive. Robbed out and swarmed out in a hunger swarm, I guess. Maybe they ran out of pollen and the weather prevented them from getting more. Who knows?

Another of the colonies had a beautiful set of drone brood. No worker brood. So I used a little Cyanogas. What's the use of uniting fifteen or twenty thousand drones and six workers with a good colony?

Well anyway, two were good. One, in fact, was a real, old fashioned, top-of-the-basket "peacherino". The bees were so thick in the hive that I wondered how they fitted in. And not a sign of a queen cell. I slapped on two empty nine-frame supers and at this writing that colony is good for 100 pounds, which for my location is only short of a miracle.

Another is a good strong colony that will give me maybe 60 pounds for the season, which for me is good. But when I looked at them for the first time they had queen cells, so I treated them to a good old Demaree, trusting to luck that they would not swarm out from above the excluder. You know they do that sometimes if you don't cut cells above the excluder a week or ten days after applying the treatment.

Before I knew what I was in for this spring I had ordered packages from the South and had made arrangements for a beekeeper that I found out my way to install them. He did, and I was back to five hives again.

Now I had one of those "believe it or not" things happen to me. Maybe the bees figured that I had enough hard luck for this season. So they decided to do something about it.

I usually keep a pile of supers at the end of the row for convenience. One week end I was in the barn, and the better half yelled to me that my bees were swarming. Since I had been sitting out in front of the hives watching the flight at the entrance only ten minutes before, and since I had been all through the colonies only the day before and knew that they were not going to swarm, I knew that something screwy was going on. Sure enough, a swarm of bees was circling over my row of hives. They very kindly picked the pile of spares and hived themselves. This pile was right on the line, next to the last colony. All I had to do was to reduce the pile to two bodies, and I had colony number six.

Now this brings me up to a very unpleasant subject. It looks as though for some indefinite time into the future my work is going to keep me tied down so that I will have very little time for the bees. More and more I have been forced to adopt a "let 'em alone" system of management, but this year it has been too much of a let 'em alone proposition. So, while I have to say so long for a time, I hope it will not be too long before I can take up where I am now, or rather, go back to where I was and take up from there. Until that time comes, then here's good luck to you all.

[We regret that it seems necessary for Propolis Pete to discontinue his column for the time being because of extra work thrust upon him. We hope he may find it possible to resume the writing of his monthly articles soon. In the meantime—don't work too hard, Propolis Pete. You know—all work and no play—what that may do to you.—Ed.]

Cover Picture

Honey bees collect a considerable amount of pollen from corn tassels at a time when it is needed. According to reports the corn crop over the country this year is to be a record breaker. The cover picture by Paul Hadley shows a beautiful ear of corn.

XUM

The Death Rattles of the Sulfaphobiacs*

By Dr. Leonard Haseman, University of Missouri

As a conservative estimate prior to 1944 when sulfathiazole was first reported as an effective control for American foulbrood in Missouri Agricultural Experiment Station Bulletin 482, 100,000 colonies of bees were destroyed by fire each year in the 50-year unsuccessful nationwide effort to control this disease. That is a terrible price to pay to the lack of vision of so-called "trained men" and their inability or willingness to benefit by the startling recent medical results from the use of sulfa drugs. It is shocking to think how many more thousands of white crosses would appear today in the foreign American cemeteries had our medical men taken the same attitude about the use of sulfa drugs as some of our bee authorities are still taking regarding its use in our warfare against AFB. Who, for instance, on the battlefield ever stopped to worry about whether the sulfa drug he sprinkled into his gaping wound would sterilize it 100 percent or merely saved his life. Again where would our pork industry be today and what would we not be paying for bacon had the veterinary specialists continued to take a similar attitude toward hog cholera treatment and whether or not it rid successive litters of pigs of infection and sterilized the pig pens or only made it possible to produce healthy animals in spite of the fact that the treatment reinfects hog farms with the virus each time it is given. The medical men are saving thousands of lives every year with sulfa drugs not by sterilizing wounds or throats 100 percent but by slowing down the growth of bacteria and thus enabling the patient to fight his way back often from death's door to normal health. Our observations and the experience of thousands of our most wide-awake beekeepers indicate that we are doing exactly the same thing when we use sulfathiazole in the food of the young bees. Bacillus larvae is a parasite of the bee grubs similar to various disease germs of man and livestock which are now being fought successfully with sulfa drugs.

*In plain Missouri English, "those opposing the use of sulfa drugs gasping for breath".

In spite of what some continue to write and say about the development of the sulfathiazole treatment, before any of our experiments were begun the writer consulted the best authorities in the country on the sulfa drugs and a number of medical bacteriologists and we had the foresight to follow their advice as to dosages and the particular sulfonimids we would most likely find effective. Then followed three years of testing, observing results and more consultation with the medical bacteriologists rather than with the so-called trained men in apiculture. We found as the experiments progressed that we had consulted the right authorities for their recommended dosages were close to ideal and of the three sulfonamids they suggested, two have since proven to be the most active in controlling the vegetative growth of Bacillus larvae. As experience has shown, had we taken the beekeeping specialists into our confidence rather than the bacteriologists and sulfa drug specialists when our experiments were being planned, we would have received little more than a warning that the problem was too complicated to be undertaken by an Experimental Station entomologist, even one with 30 years' research experience with foulbrood, and especially when he had only the help of a technically trained former Experiment Station soil bacteriologist as the cooperating commercial beekeeper. The sulfa treatment was not a chance discovery but one based on well planned and extensive Experiment Station research. The writer has found that in undertaking any experimental work it is wise to get and to follow all of the advice possible from those who are in a position to give real advice and encouragement.

Now just what is the status of the sulfa drug "fad"? Briefly, it is being used effectively in every state in the union and in many of the other honey-producing countries. In the United States, according to statements of some of our best apiarists, it has already in three years very definitely helped to reduce the number of cases of AFB and has saved

thousands of producing colonies from the fire pit. Already practical beekeepers' worries are turning from AFB to EFB and Nosema. Fad or no fad, if it has been able to do such things in three years in spite of organized opposition from certain quarters and without any concerted effort to push its use, it would not appear to us that the effective use of sulfathiazole against foulbrood is on the wane. The beekeepers in the different states are learning to use the treatment frequently without the advice and assistance of those paid to protect beekeeping from this disease and they are not saying too much about it. The treatment for hog cholera at first also had its doubting Thomases. As a measure of its real value to beekeeping, watch the records in future years as to the decreasing number of diseased colonies found and burned in the several states, including even those in which the sulfathiazole treatment is not yet recognized.

For the benefit of readers who may not yet be acquainted with the treatment, let it be said that as of July 30, 1948, we who developed the treatment are not yet ready to say definitely that its use will necessarily sterilize an apiary, the apiary equipment, and the community, though some investigators report colonies remaining free of all evidence of the disease for three years after sulfa treatment is given. The burning treatment, let it be said, will also not prevent possible reappearance of the disease in an apiary. We do insist, however, that properly used with bees, as with a "strep" throat, it will return the sick colony to health and to the storing of a normal crop of honey and if fed properly to a healthy colony it will keep it free of AFB even when exposed to or actually given spores of the disease. Never before in the history of beekeeping has any treatment or drug done so much to control AFB. When every beekeeper is taught and encouraged to use the treatment properly as a regular apiary practice, AFB, like hog cholera, will be licked and the state apiarists, like the veterinarians, are welcome to all the glory it will bring them.

Let us try and remain rational in this controversy and remember that for complete and permanent protection to an apiary or a community the sulfathiazole treatment should be used by every beekeeper as a regular part of apiary management spring and fall or whenever any AFB is found in any colony. The dosage includes half a gram of sulfathiazole to a gallon of sugar syrup or diluted honey fed as such or used as the sweetening in preparing sulfa-treated pollen substitute. It may not kill spores of AFB but it definitely will control the vegetative growth of the germ which is the killing stage in the bee grub's digestive tract. Keep the germs under control in the brood's alimentary canal and the spores, whether in an old bee tree, an abandoned hive, or in front of a hive cleaned out by the sulfa treatment, are just as impotent as TB germs in a healthy pair of lungs or in the air we all breathe. Use the treatment regularly along with other good bee management. Also do not get too much excited about what you read or hear from learned bee authorities concerning the technical reasons why the sulfa treatment cannot and will not control American foulbrood, for remember the bumble bee would never have learned to fly had it listened only to the theories of the aeronautical specialists. Good beekeepers everywhere, carry on, and I promise you this will not be my last blast at any of the opponents of the sulfathiazole treatment who may continue to live and reminisce in the past, sit in swivel chairs, look only for imaginary sulfa ghosts, and generally impede rather than promote your best interests.

Letter from Prof. Schiller

At the end of my article entitled "Capacity of Communications in Honeybees" appearing in Gleanings for August, 1947, I spoke of the "intelligence" of the bees. In doing this, I was expressing my own conviction on the subject. It was, therefore, not a repetition of opinions of Professor Von Frisch, who is the discoverer of the language of the bees.

Prof. Dr. Jos. Schiller
Vienna, Austria

XUM

Second Glances

By C. M. Isaacson

For the small producer, a set of cappings baskets to fit his particular extractor helps a lot to solve the cappings-drying problem. Mr. Diemer's electrically heated tanks will do the job also but are slower (page 482). It pays even the back-lot beekeeper to simplify his operations as much as possible. Mr. Diemer's use of electricity in his operation is quite ingenious, however.

Laboratory work has not been favorable to sulfa as a curative for AFB, but much actual field experience has (page 483). As J. E. Eckert says, just what is the answer? Perhaps just—"use sulfa—cautiously".

"Making beekeepers" might well be the title of the article on page 484, for Mr. Bevers has done just that in many cases. More power to him—besides having a lot of fun out of it all, he is making it possible for others to share in the pleasure from the most interesting of vocations — beekeeping.

Package bees need water in transit, says the article on page 486. That would be doubly true in hot weather—perhaps the syrup could be made thinner for late shipments. Mr. Wright likes queens without attendents in their cage with his packages. This is good, and it is also good to so arrange that they are liberated enroute—especially if they are shipped on a honey flow or the shipper gives them an extra feeding before they leave. It makes a difference that the queen is ready to begin laying immediately.

Bee yards in the brush are more likely to be subject to bear damage (page 488). That is true as I can confirm from experience. Even those far from a building, if placed at least partly in the open, are molested less often. The suggestion to locate near buildings where there are dogs is also good—and electric fences do have value if properly erected.

Honey intensifies flavors, says Mrs. Nielsen (page 489). That is especially true if a mild-flavored honey is used—too pronounced a one will sometimes "take over" on its own. The advice to go lightly in using is good — you can use too much, even of honey!

Small devices or ideas can be of real use, and such is the item on page 490. Using old package cages as porch screens is like making something out of nothing and the idea may be very welcome to beekeepers with considerable moving to do. The one objection might be the bulkiness of such screens.

Mating from upper stories (above excluders) happens fairly frequently if openings are left when Demareeing (page 492). But results are quite variable as Mr. Phillips records. His four-compartment nucleus does seem a practical arrangement and uses standard equipment. With the four Mason jar feeders it would seem to fill the need completely and produce the good queens we all want and need.

The comparative desirability of DDT as against both arsenical poisons and some of the newer insecticides is being brought out more and more (page 496). It is much less toxic to honey bees in field applications and this means benefit to everyone concerned.

Beekeeping is a "disease". I have often made such a statement and the report made by H. H. Root (page 497) surely adds to the belief. Tom Paisley, once exposed, more than came down with it! We need many more in our profession with his enthusiasm **and** the ability to tell the story to others.

Requeen when needed. Your "middle course" is sound, Propolis Pete. No set rule should be laid down for requeening—just replace when necessary — paying especially close attention during the spring months. As to that problem of keeping a few queens if one is a small beekeeper—if there is a strong colony, lift brood above an excluder and the bees there will care for a small number of queens for quite a period (page 499).

Sweet clover has staged a real comeback in many areas in the North (page 508). It is pleasant to see acres and acres of volunteer stand, all healthy and blooming well. But once again comes the determining factor—weather to work it. Here we had fine weather and a like flow for the first two weeks: cloudy, cool spells with slow-up of the flow following. The bees have to get out there.

Thief River Falls, Minnesota.

American Honey Institute News Notes

By Harriett M. Grace, Director
Commercial State Bank Building
Madison 3, Wisconsin

Tune In on Our Grapevine!

Recently one of the newcomers to our office, after returning from her first beekeepers' meeting, burst into the office and exclaimed, "My, wait 'til I tell you everything I discovered!"

So we listened. And we learned. We found out that first impressions of a beekeepers' meeting run something like this:

1—Beekeepers are just about the friendliest people in the world.

2—Beekeepers are intensely interested in the business of beekeeping.

3—And best of all, beekeepers really appreciate the American Honey Institute and the work that it is doing for them.

This last point made us feel particularly good. When cooperation such as that between the beekeeper and the Institute expresses itself in such concrete form that even a comparative newcomer can sense it, results beneficial to both sides are inevitable.

Now just what results are you getting? Let's look at them. At these midwest meetings two long scrolls are exhibited showing: (1), the publicity which comes to Honey as a result of the cooperation between the Institute and allied industries, and (2), the thousands of responses of the public to the ads in the professional magazines. To every one of these requests the Institute sends a copy of the nutritional bulletin on Honey as well as a set of recipe leaflets. This literature runs into money. All this was advertising your Honey—**all** Honey! These are just **examples** of the results of cooperation between the Institute and you.

What'll We Have for Supper?

Do you know the greatest food problem for housewives all over the country? A recent poll shows that over 65 percent of the women considered preparation of varied meals their most difficult problem. Here's where the Honey seller can find his Elysian Fields. Use our recipe books to let the housewife in on the little secret of using Honey to vary her meal planning. Then sit back and watch your Honey sales boom!

Follow the Leader

The postman needs to ring only once when he brings the Institute letters as nice as this one: "At our last beekeepers' meeting our members voted to join the American Honey Institute. We feel that the Institute is a worthy cause and has helped the beekeeper in many ways. We hope we will be able to contribute more in the future." Follow the leader? We hope you will.

Bee Philosophy

Only a beekeeper would be able to appreciate this bit of bee wisdom that a Wisconsin minister sent to us the other day. Quoth he, "I keep a few hives to hold the friendship of the bees." "Friendship of the Bees"—nice thought, don't you think?

The New Look in School Lunches

Five million pounds of Honey will be fed to the children of America this year when the government launches its school lunch program. Mrs. Grace is busy changing our Honey recipes into large quantity recipes for use in the schools of the nation. Results will be healthier children and a better Honey market.

To Each His Own

When the August issue of the Members' Bulletin is sent to each of the Institute's members, you will discover that a separate sheet has been devoted to each of the three important members of the Honey family—one that is HIS (the beekeeper's), ones that is HERS (the honeywife's), and one that is OURS (the Institute's.) Here can be found the marketing tips, new recipes, general price trends, Institute information—oh, lots of things. This—and other services—are offered to any beekeeper contributing to the American Honey Institute!

Not So Dumb

Not so dumb is the bee businessman who buys our recipe books at cost from us and resells them to his customers for a profit. Our New Favorites costs you 25 cents (20 cents in quantities); its attractive cover and well - illustrated pages have sold many an additional container of Honey. Try it and see.

XUM

Annotations

By Prof. A. Z. Abushady
Assoc. Mgr., International Business Associates, New York.

Autumn in Summer. — Beekeepers in New York have faced a peculiar rainy season this year. And now they contend with autumn mornings and nights with summer days! The goldenrod has started to bloom by mid-August and, with a more considerate weather, beekeepers should be able to secure a good honey crop in September. I find goldenrod honey a favorite here, though not so well appreciated abroad owing to its sharp flavor to many palates. Sweet clover is still in bloom by mid-August, but the bees will not give it now the attention they accord to its golden rival.

Preparing for Winter.—It bears endless repetition to say that plenty of young autumn bees and plenty of stores are the first factors in winter preparation. The former depend chiefly on good prolific queens. American beekeepers are fortunate in having choice standard queens at their disposal, whether Carniolans, Caucasians, or Italians. It is a privilege in particular to secure grey queens (Carniolans and Caucasians) at $1.00 each. These are an unattainable dream to many beekeepers abroad, particularly in the war-ravaged countries. Some of their bitter experiences Mr. Frank C. Pellett has echoed in his August "Postscript" to the Am. B. J.

Shipping Bees by Air.—In the absence of direct supplies from Carniola, Jugoslavia, the Middle East (particularly Egypt and Palestine) is becoming interested in direct shipment of Carniolan package bees, apart from pure fertile queens from the U.S.A. My inquiries from Mr. Capella of the International Air Freight Division of TWA led me to the following information: (1) Package bees are acceptable for shipment to Cairo, Egypt, for instance, on any day provided there is room for them, inquiries to be made in advance. (2) Delivery to the Air Freight Division at LaGuardia Air Field to be affected four hours in advance of the scheduled flight hour with the necessary papers obtainable from TWA. (3) The actual time of the journey is 35 hours, but the bees will be four hours more in transit at each end (New York and Cairo) through customs and clearance. (4) There is a special cargo flight every Saturday leaving LaGuardia Air Field at 12 noon standard time. (5) The charge is $1.62 per lb., the minimum charge being $5.00, and the estimated lb. is on the basis of 200 cubic inches space. (6) The Company allows free insurance of $7.56 per lb. For additional insurance, a charge of 20c per $100.00 is made. These are excellent facilities for air shipment which should be at least as productive and as successful in shipments to Egypt as in shipments to Ireland, etc.

How to Determine a Failing Queen.—Mr. Harry Starnes in the August Am. B. J. (p. 407) says that he finds his best honey producers each season are headed by queens raised by the bees themselves in the last quarter of the honey flow the previous fall, or early in the spring. Thus he emphasizes the value of supersedure queens. If the colony is doing well and has plenty of combs of solid brood he does not look for the queen at all. But if the brood is not adequate, he finds the queen and looks for abnormalities in her anatomy and behavior in relation to the workers and to the combs. The real test in his judgment is honey production. Making colonies uniform with good queens is the sound advice he is giving to the beginner.

Philip J. Baldensperger. — With great sorrow many beekeepers the world over will have learned of the passing of this great internationalist and bee master who served the cause of international amity as much as the cause of bee culture.

Highlights of Michigan State Summer Meeting

By H. H. Root

The first of the two-day session was held in Ionia on July 28. The sessions the next day were at Eastport, Michigan. Unfortunately, I was unable to attend this meeting. In spite of a highly spotted honey crop, there was a large attendance at Ionia.

Don Barrett, the State Inspector, feels that conditions in beekeeping throughout the state are looking up, as there is far more interest in the growing of legumes than ever before. The appropriation for bee inspection is now $35,000, with an additional $17,500 appropriated by counties. In 1927, 15,000 colonies of bees were burned out of 98,000 inspected, this amounting to over 15 percent diseased. This disease is now so well under control that the actual number of colonies destroyed is but a very small fraction of the number 20 years ago.

The speaker raised the note of caution regarding certificates of inspection when sulfa feeding is followed and he warned buyers especially to be on the alert when buying sulfa-fed bees. There is usually no evidence of trouble but it may break out later, especially following a change of ownership when the feeding is not kept up. Under conditions now existing in Michigan, sulfa feeding is permissible on application to the state, but after several years' experience it has been found that sulfa feeding is effective only when the work is carefully and conscientiously kept up even after all trace of the trouble disappears.

Ralph Blackman, giving his queens the run of three stories early in the season, had little swarming except in connection with supersedure of queens, but he warned that the enormous colonies resulting caused the queens to wear out prematurely. Mr. Blackman had noticed a serious loss of bees and wondered whether the poisoning of weeds may be in part responsible. There is evidence of a noticeable shift toward comb honey production with comb honey retailing at 50c a section.

Commenting on sulfa feeding, Mr. Blackman showed that even during a honey flow the bees will take the syrup if it is poured right on the combs. He is certain that the bees are pepped up by sulfa feeding and as to the possibility of a trace of sulfa getting into the honey, he thinks that might pep up those who eat it!

Oscar Schmidt told of the disappointing season with a wealth of clover and with colonies reaching their peak of strength just the right time. The gain is not steady, the hives losing weight the last half of July. Mr. Schmidt feels that the 10c price on dark honey offered by the Federal Government really broke the market, especially since in so many newspaper accounts no mention was made that the honey bought was dark.

A. Tennenhouse of Detroit argued that sulfa feeding has enabled many to succeed and produce honey who might otherwise be discouraged and quit. He pointed out that the federal purchase of white honey for the school lunch program netted the producers not over 9c in many instances.

At most beekeepers' meetings, even though the number of women present sometimes nearly equals the number of men, the women themselves are not on the program. The Michigan summer meeting was an exception. Mrs. George Seidelman of Ionia was on the program, her subject being "What a Beekeeper's Wife Thinks". She said she did not dare tell what she sometimes thought, lest they chase her out. Mrs. Seidelman proved that a beekeeper's wife does think and thinks very clearly.

Howard Potter, Professor of chemistry at Alma College, gave an interesting talk on Michigan honey plants. He said that sweet clover is growing much better than for six or eight years but that whereas they used to get plenty of honey from wild sweet clover, the plant is not yielding as well as formerly and no one knows why. He showed a vigorous stock of anise hyssop with its purple cone-shaped blossoms. The bees work on it but there is not enough of it ordinarily to make any

(Continued on page 590)

Asked and Answered

Aluminum for Honey Tanks

Question:—I have been wanting to get a stainless steel settling tank of about 100 gallons, but it seems to be out of the question. I wanted to get away from galvanize and one of the local shops suggested aluminum. Will you inform me if aluminum will affect the honey in any way? Galvanize seems to darken honey and change the flavor slightly.—C. Howard Hathaway, Ariz.

Answer: — Galvanized steel does not do any harm to speak of when used for an extractor. For honey tanks where the honey may stand for a long while, that is another matter. When steel became so scarce in the early years of the war, some manufacturers gave up the manufacture of honey tanks, both because they could not get steel enough for tanks and extractors, and because the galvanized steel seemed to be undergoing a change, the coating seeming to show more lead than zinc—and lead is not a very good metal for honey. The zinc is not particularly objectionable. A further difficulty is that solder which used to be made of equal parts of lead and tin is now one third tin, two thirds lead. Even a stainless steel tank, if soldered at the seams, would therefore be objectionable. Aluminum is a wonderful material for honey tanks in that honey has virtually no action on aluminum. Aluminum cannot be soldered and while progress is being made in welding aluminum, we have found that so far attempts have not been too successful on account of the warping of the metal. If a very heavy metal is used it may be welded. Progress is being made along this line but results are not yet altogether practical.

Heating Extracted Honey Before It is Bottled

Question:—What is the advantage of heating extracted honey for bottling? What does it do to the honey and why is it done?—Joseph Prends, Mass.

Answer:—It is customary to heat extracted honey to a temperature of 160 degrees F., leaving it at that temperature for about 20 minutes before it is put into bottles. The bottles of honey should be sealed while the honey is hot. This heating destroys any yeasts that may be present in the honey to cause fermentation. The heating also liquefies the honey thoroughly and retards granulation.

Clipping Queens and Disposing of Drone Brood.

Question:—Please tell me if you think it is best to clip queens' wings in comb honey production? When opening hives, looking for queen cells is it best to destroy most of the drone cells?—Walter A. Bryer, New Hampshire.

Answer:—It is customary to clip the wings of queens in comb honey production, especially if the owner of the bees is obliged to be absent from the apiary during the middle of the day when swarms come out. When a queen's wing is clipped she cannot fly away with the swarm but returns to the hive—that is, if the hive is not too far up off the ground for the queen to crawl back into, and then the bees will return to the hive. It is necessary of course for the owner to examine the brood chamber of the hive to remove queen cells and to do whatever else is necessary in swarm control. It is usually necessary to remove some combs of brood to give to a weak colony, then replace these combs with empty combs or full sheets of foundation. When each colony is headed with a young queen, swarming is not so likely to occur as when old queens are present in colonies. It does no harm to destroy drone brood by rubbing the hive tool over the sealed brood to mash the cappings. If some combs consist mainly of drone brood it would pay to remove such combs, melt them up into wax, then replace with full sheets of worker foundation. Worker cells will produce worker bees which are needed for honey production.

Increase by Stimulative Feeding

Question:—If I place four or five frames of bees and lots of brood in a hive about the second week of May or later can I get them to raise a new queen?—Clyde Silverling, Pa.

Answer: — Although we do not recommend stimulative feeding and division of colonies before the main honey flow, still if one desires to attempt it, we suggest either of the two following plans:

(1) In the spring keep the colonies warmly protected; and from the time the bees begin flying freely, give them a continuous slow feeding of thin syrup, one part granulated sugar mixed with one part warm water. As soon as the colony is nearly strong enough to swarm,

place on the old stand a hive of drawn combs, the queen and a comb containing a patch of eggs and young larvae. Above this, place the queen excluder and then the old hive of bees and brood. In eight days move the old hive or upper story to a new location, contracting the entrance, and if they have started queen cells and are of good strain, allow them to raise their own queen. Otherwise, introduce a ripe cell (in cell protector) or better still, a good queen.

(2) Another method sometimes employed is put into operation as soon as settled warm weather occurs, such that there can be no danger of chilling the brood. The colony is divided in two, filling the remainder of each hive with drawn combs. Two-thirds of the bees and all of the sealed and hatching brood are placed in a hive on a new stand, the entrance being contracted, and a ripe queen cell or good laying queen introduced. Both of the colonies are then built up by slow stimulative feeding. Many of the bees will return to the old stand, but all of the young and hatching bees will remain to keep the brood warm.

Package Bees Cluster in Empty Super Instead of Going Below

Question:—I have a problem with the bees I just received. They were introduced into an empty hive according to the rules and regulations, which the bees did not seem to understand. They came out of the package, but they all went to the top of the empty hive and started to build on the inner cover. I **do mean build.** They have filled at least one third of the super already in about 10 days. Since the super is empty of frames they can do this. I put the package in the empty super and the frames of foundation below. With this free building from the inner cover I imagine that the queen is in there somewhere and may be laying. I do not know and cannot see. My problem is: What can I do about getting them down where they belong?—James I. Bardsley, Pa.

Answer: — Your bees prefer the top of the empty super which was put on temporarily to make room for the syrup feeder can, rather than the combs below. This situation occurs once in a while. It is not unlikely that the queen has laid some eggs in the combs built in the empty super. If you have a queen excluder it can be brought into use to good advantage. You should shake the bees out of the combs built to the inner cover, down onto the frames containing full sheets of foundation. It might be well to remove three or four frames of foundation below, temporarily, until the bees can be shaken into the space made vacant by the removal of the frames. If you happen to see the queen, she should be transferred down into the lower chamber. Lift her by taking hold of the wings with your thumb and index finger. After the bees are down below, a queen excluder should be placed over the lower chamber, then the super containing the freshly-built combs should be placed over the excluder until the brood, which we assume is in the combs, emerges. This super may then be removed and the combs saved for wax. By following this procedure it should be understood that the queen will be forced to start laying in the brood chamber below and some of the bees will take care of the young brood above. You need not be afraid of the bees. A little smoke may be necessary. If you will do this manipulating during the middle of the day when the bees are flying it might be possible to get along without using any smoke. It would be well to wear a bee veil.

Rendering a Small Amount of Old Combs

Question:—How can I get the wax from a small amount of cappings or old combs without much expense?—John Hall, Ind.

Answer:—To render a relatively small amount of wax from cappings or old combs, place them in a burlap sack, tie the mouth of the sack securely, then put the sack into a wash boiler of hot water, over a hot plate. It may be necessary to weight the sack of combs down with a couple of bricks. The boiling water will melt the wax, which, being lighter than water will rise to the surface. The burlap sack will retain much of the debris or foreign matter and prevent it from getting mixed with the wax. After allowing the water to boil a short time—about 15 or 20 minutes—the water should be allowed to cool. The wax on top will solidify and can then be lifted off in a solid chunk. While this method may not get all of the wax from the combs it is quite simple and can be used by any beekeeper who has a wash boiler or a similar container and a closely woven burlap sack.

XUM

Glenn O. Jones speaking to the Illinois beekeepers on July 18
—Photo courtesy G. B. Lewis Co.

Notes on Illinois, Wisconsin, and Minnesota-North Dakota Summer Meetings.

By M. J. Deyell

After one has been to four well-attended state summer bee meetings in a row, listening to talks, meeting many wonderful people, and partaking of sumptuous dinners—picnic style—it is a little bit difficult to return to the hum-drum life of an editor—especially when his desk is piled high with incoming mail.

The Illinois meeting on July 18 was well attended. President A. E. Meineke, after calling on Dean Henning Larson for an address of welcome, presented **Glenn O. Jones, Secretary-Treasurer of the National Federation.** Mr. Jones emphasized the importance of the bee for pollination and mentioned the 50-50 pollination program now in vogue in parts of Iowa and Nebraska, where the beekeeper furnishes hives of bees for pollinating legumes and in return gets one half of the seed produced over one bushel per acre.

He also mentioned the project on honey advertising sponsored by the Federation, referred to on page 576 of this issue. Mr. Jones said the project, if successful, can be turned over to the American Honey Institute.

Miss Virginia McNaughton, an enthusiastic representative of the American Honey Institute, told about advertising done by the Institute in professional journals and how well such advertisements pull. The first ad in March **"What's New in Home Economics"** resulted in over 1500 inquiries.

To give the audience some idea of the enormous amount of honey publicity appearing in newspapers and journals attributed to the work of the Institute, a large roll of such clippings was spread out for 40 or 50 feet to show the wide scope of such publicity from over the country. Miss McNaughton stressed the great amount of honey publicity work done on a comparatively small budget.

E. C. Bessonet of Donaldsonville, La., bee and queen shipper and also President of American Bee Breeders' Association, gave the objective of this recently formed organization,

Miss Phyllis Rasmussen and Miss Virginia McNaughton of the American Honey Institute.—Photo courtesy G. B. Lewis Co.

namely, to produce better bees and to cooperate with northern beekeepers in furnishing quality bees and queens.

Mr. Bessonet said that the size of the queen mating nucleus hive had no bearing on the quality of the queen, and that abnormally early reared queens were not profitable.

Carl E. Killion, State Apiarist of Illinois, said there must be proper supervision of chemical application to save bees. Some farmers have promised Mr. Killion to plant sweet clover for seed in order to have bees kept on their farms for pollination.

The first Wisconsin meeting was held on July 20 at Watertown, home of the G. B. Lewis Company, and the second on July 22 at Superior. Some progress was made in standardizing grades and colors of honey, as well as prices.

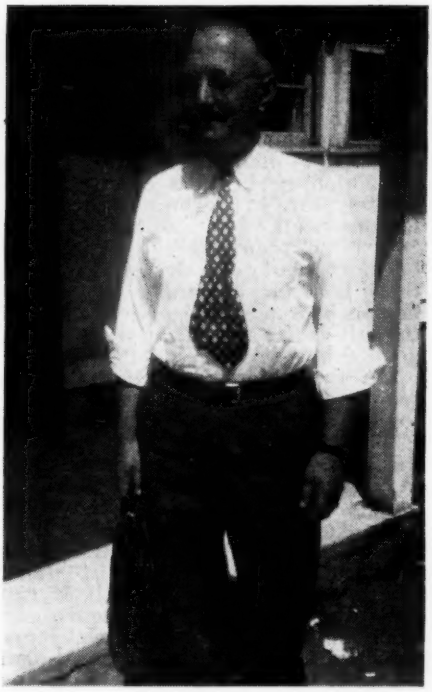
Parts of Wisconsin are hard hit with Nosema, this being due in part, it is thought, to peculiar weather conditions.

Most of the out-of-state speakers attended all of the meetings and brought substantially the same message to each audience.

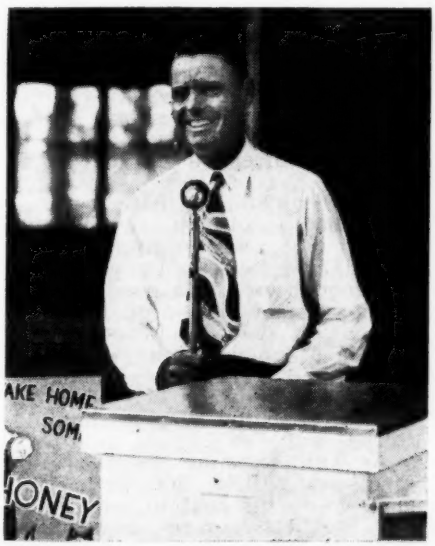
The joint meeting of Minnesota and North Dakota beekeepers at Detroit Lakes on July 22 and 23, held in a commodious pavilion on the Lake, was a success.

C. G. Langley of Red Wing, Minn., President of the state association, told of the support being given bee-

(Continued on page 592)



Prof. H. J. Rahmlow, Secretary Wisconsin Beekeepers' Association, and Editor of Wisconsin Horticulturist.



E. C. Bessonet, Donaldsonville, La., a bee and queen shipper, and President of Southern Bee Breeders' Association. — Photo courtesy G. B. Lewis Co.

XUM

A Talk to Beekeepers

By M. J. Deyell

No Royal Road to Success

If someone should develop a scheme or method of management by which beekeepers could be absolutely sure of a crop of honey each season—well, what would happen? One thing seems sure, there would be more honey on the market than there is at present and honey would be more of a staple article of food than it is today. That might be a good thing for the industry.

On the other hand, if we could secure good crops of honey by following a formula, I doubt very much if beekeeping would be as intriguing as many beekeepers find it to be at present.

Last evening as I escaped some supers of honey in one of my apiaries, I did not have to put forth a great deal of effort to lift them. There is one consolation, if it can be called such, in not securing a big crop, and that is the beekeeper does not have to expend a great deal of time and effort to get it off the hives and ready for market.

The crop of clover honey is exceedingly light in this part of Ohio — around 25 pounds per colony — perhaps less.

In this area we are usually favored with a fall honey flow which begins the last of August and continues until the first week in October. It is possible the bees may store a crop from the fall flow.

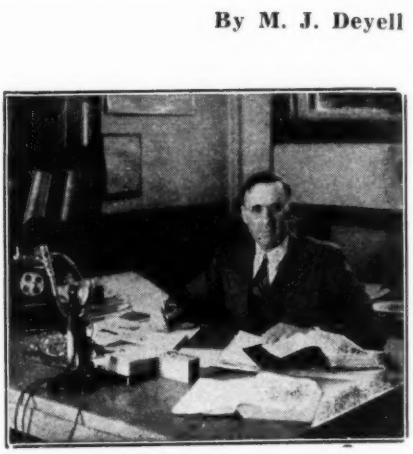
Five Requirements for Securing a Crop

I have mentioned these in former talks but I wish to review them again. The requirements are:

(1) Good beekeeping equipment; (2) good bees; (3) a good beekeeping location, which means an ample amount of nectar and pollen; (4) intelligent apiary management; (5) favorable weather conditions for nectar secretion and bee flight during the time the surplus should be stored.

As you examine these requirements you will see that the beekeeper may do his part in seeing to it that the first four requirements are fulfilled, but if the last requirement which has to do with weather is not present, the maximum crop will not be secured.

It may be, and doubtless is, a satisfaction for beekeepers to know that they have done their part, even when the weatherman does not see fit to give beekeepers a good break.



Writing the Talk to Beekeepers

Even though the weather is not overly favorable during some seasons for bee flight and nectar secretion, it is amazing what unusually populous colonies will do, in only five or six days, in storing a crop of surplus honey. It seems obvious that many beekeepers fail to secure a maximum crop simply because they do not have their colonies up to the peak of strength at the proper time. The former editor of this journal, George S. Demuth, used to say that many colonies built up on the flow instead of for the flow. How true that is.

Beginners, Please Take Notice

There are a few things beginner beekeepers should know about apiary management during the fall months in order to winter bees successfully in the North. The more experienced beekeepers need not read what I have to say unless they care to.

As I have tried to point out in former talks, it is exceedingly important that all colonies going into winter quarters be populous, with a high percentage of young bees. This means that colonies should be headed with good prolific queens during the late summer and fall months so that those queens may have time to produce plenty of young bees that will stand the rigors of the cold winter weather better than the old ones.

Once in a while a beekeeper inquires whether or not he should divide his colonies during the fall months in order to have more colonies the following spring. I would say that if colonies are not up to good strength they should be united in the fall in order to be more sure of having some real colonies the following spring. It may be possible in the spring to divide very strong colonies and, with skillful management, get them built up in time for the major honey flow, especially in regions where the main flow starts relatively late in the season and is of considerable duration.

Some years ago a beginner beekeeper nearby told me that he intended to divide his strong colony of bees into five parts about the first of August, giving the queenless divisions young laying queens with the idea of having all divisions build up for winter. I tried to discourage him in the idea, but to no avail. He went through with the dividing and of course lost all of his bees during the winter. That was a rather expensive lesson for the young fellow, but it was one way to learn.

Importance of Ample Food

It seems necessary to emphasize this requirement each season because there are those who like to gamble on their colonies having enough winter stores. The only satisfactory method I know is to examine the combs of the brood chambers, estimating the approximate amount of honey in each comb. However, as I give my own bees the last inspection for winter, if I find a two-story hive as heavy as lead or "nailed to the ground" as our boys sometimes say, I do not have to examine the combs, provided of course I am sure that other requirements are present. A standard comb, when quite well filled, should contain about five pounds of honey. On this basis it is comparatively easy to estimate the amount of honey in each brood chamber.

In doing this estimating it is well to keep in mind the fact that some of the combs contain pollen. You have doubtless observed how pollen is stored in the combs, each cell about half filled with pollen, then honey placed on top. Authorities tell us that there should be four or five combs containing pollen. This abundance of pollen serves as a reserve supply during the cold spring months when the bees cannot fly out for fresh pollen, being reached in the bottoms of the cells as the honey is consumed. What a wonderful provision this is.

A populous colony should have an ample amount of food—at least 50 pounds. Sixty pounds or over would not come amiss. Any extra honey not used is never lost and is like money in the bank at compound interest. Authorities have been telling us that when the amount of honey gets down below 15 pounds in the spring, the queen begins to slacken her pace in egg laying. As a matter of fact, a colony may not consume 50 pounds of honey during the winter months, at least in this area, but this amount and more will be needed during the winter and early spring months before bees gather nectar in quantity.

We winter our colonies in two-story hives and prefer the deep food chamber which is a standard hive. A two-story, ten-frame hive with bees, honey, and pollen should weigh at least 120 pounds in late October when it is ready for winter. As a matter of fact 130 or 135 pounds would be a safer weight, especially if the owner does not wish to feed early in the spring.

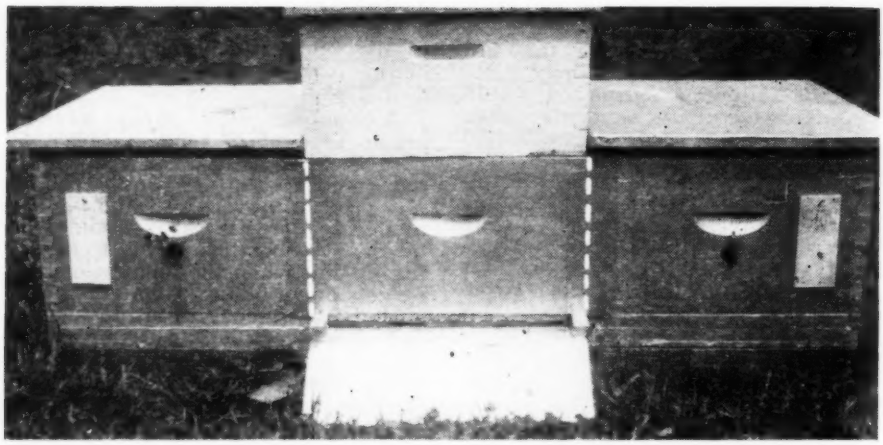
In the event that beginners should not have a fall flow and their hives are not well filled with honey for winter, it is possible to feed sugar syrup during late September or early October. More will be said about this in the next talk.

Protection for Bees

Bees in their natural habitats in the North are quite well protected from the elements. For example, bees in a tree have the protection of the tree and usually there are one or more small openings leading to the bees.

At present there appear to be differences of opinion on the importance of packing or insulation for bees. It seems to be a fact that for a cold climate packing is advantageous, especially if it can be kept dry. Wet packing is worse than no packing at all.

We have said to beekeepers that if their present method of wintering bees is giving success, stick to it rather than experiment on a large scale with some other method that may or may not work in their localities. Those of you who live in the East will see what George Rea



Two-queen hive with the brood chamber at each side and on the same plane with supers and main entrance in the center.

has to say about packing in his article appearing in this issue. Bees in dry climates may not need as much packing as bees in damp climates.

To Winter or Not to Winter

There was an editorial on this subject in the August Gleanings and, as brought out, there are two sides to the question.

I have never been able to bring myself to the point of destroying all bees in the fall. Possibly if I lived up in the far North or in Canada I might do as quite a number of beekeepers do, kill off the bees in the fall and stock the hives with packages in the spring. I hope that some experimental work may be done on this practice in the near future in order that we may know which method is the more economical for the North.

Since the appearance of the August Talk a beekeeper in the East called my attention to the fact that where I mentioned using a super on top of the hive for emptying a package of bees into, I failed to specify when this empty hive should be removed. This beekeeper says that in his experience when a package of bees is placed on an empty super on top of the hive intended for the package, the bees frequently cluster up on the inner cover in the empty space instead of going down onto the combs where they belong. We have this occur once in a while, but not often. Those of you who wish to try out this idea should be sure to remove the empty super after it has accomplished its purpose, instead of leaving it on even for a week or less. See page 517 of the August Gleanings.

A Two-Queen Hive

I like to experiment each season along different lines for my own satisfaction. I have met some beekeepers who, in my opinion, spend most of their time experimenting and in consequence may get little if any surplus honey.

Some of you have read about the Bell double-queen hive used in California. This spring I had the boys fix up a hive similar to it, as shown in the picture. The white perpendicular marks indicate queen excluders. A package of bees was installed in each side the latter part of April. We placed tight-fitting division boards on top of the queen excluders, temporarily until the bees got established. Later on we removed the division boards and permitted the bees from each colony to intermingle. You will see that the purpose of the hive is to have a queen and brood at each side and supers in the middle. In other words, the brood chambers can be examined easily without having to lift the supers.

If there had been a good honey flow this season we would have had an opportunity to try out this type of hive. In future talks I hope to have more to say about the results obtained with this type of hive. As you know, the ordinary two-queen management calls for a queen in the lower brood chamber and another

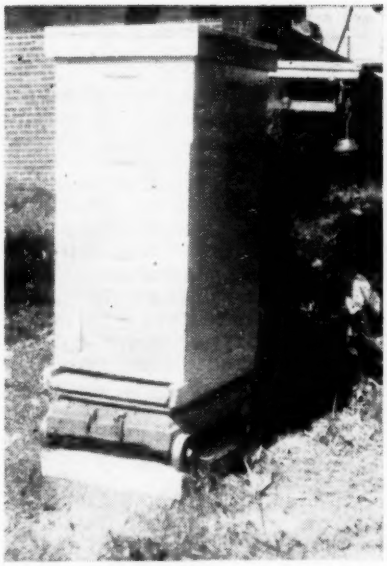
queen in a chamber up near the top of the pile of supers. A few weeks ago (July 19) I saw some hives in Dr. C. L. Farrar's experimental apiary near Madison, Wisconsin, that were 12 stories high and the supers were not empty. The colonies occupied square 12-frame hives 6¼ inches deep. Each colony had two queens up to the beginning of the main honey flow. The scale hive had made a net gain of 267 pounds on that date.

You will note the augur holes in the side compartments just below the hand holds. These holes were put in at the time the packages were installed and the tight-fitting division boards were placed over the perpendicular queen excluders. We intended to plug up these holes later on when the honey flow began so that the bees would use the middle entrance. If we have a fall honey flow we may yet have a chance to see what this double-queen colony will do.

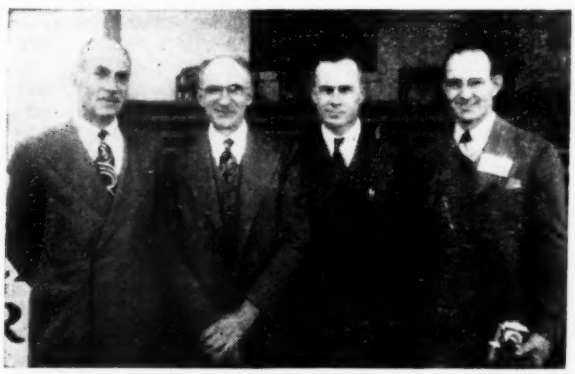
The hive is rather cumbersome and one would need a 99-year lease on a location where a considerable number of such hives were kept. The hive is not designed for migratory beekeeping.

The Scale Hive

A scale hive is right outside my office door. I watch the bees each day and keep a record of the weight of the hive. These weights are tabulated early each morning. This past season the weight of the hive increased over 40 pounds after the major honey flow started, such as it was. Since the cessation of the major flow, the weight of the hive has decreased 12 pounds. We never know, however, what the entire crop will be until the end of the season.



A scale hive may serve as a barometer for the honey flow throughout the season.



Picture taken by Jack Deyell at the Biloxi, Miss., meeting held in November, 1947. Left to right: Jas. I Hambleton, Senior Apiculturist, U.S.D.A., Beltsville, Md.; W. W. Whitcomb of the Southern States Bee Culture Field Laboratory, Baton Rouge, La.; Otto Mackensen, Specialist in Bee Breeding, Baton Rouge, La.; W. A. Stephen, Extension Apiarist, Raleigh, N. C.

XUM

80 Years Among the Bees

By E. R. Root

Heavy Loss of Bees in the Northern States the Past Winter

There may be several answers to this question, some of them based on facts and some on fancy. As Josh Billings said, "Experience is a good school but the tuition is high". He also made another observation, "What's the use of knowing so much when so much you know ain't so".

Now pardon a little boasting, but I believe that I'm the only man living among beekeepers who ever sat at the feet of that great Gamaliel, Langstroth, and heard him talk about bees—heard him and Father discuss the problems that had come up, and how to solve them.

At this time I want to tell of a particular conference with Langstroth on one of these occasions, covering the heavy loss of bees during the winter of '81 and '82, at which time A. I. Root lost 93 percent of his bees which were carefully packed with from four to eight inches of chaff on all sides and on top. Bees were fed sugar syrup late in the fall. Father had been in the habit of going out into the country and buying black bees wintered in single-walled boxes with cracks and knot holes in the top and sides. These were to replenish his constant losses in double-walled packed hives. He asked Langstroth the straight question: Why did the bees in plain boxes winter and those in double-walled hives die during the winter? I was witness to all of this, being 20 years old at the time, and here is a brief of Langstroth's answer:

Said Langstroth, to Father's surprise, "The bees that are in a box hive about 12 to 14 inches square and 2 feet deep make their own winter brood nests. The combs are crooked and built around a common center and in this center the bees cluster. The stores are in the upper part of the hive and the bees can reach them without going farther than two or three inches. The combs are built like the spokes of a wheel, they are crooked and full of holes, and this is a great advantage when cold weather comes on and the bees have to move over to fresh stores."

He continued that though he had invented a movable-frame hive, the combs were regular and flat as a board for the purpose of easy manipulation, and when the quilt is put on top of the frames, no matter how much packing is put around them, the bees cannot move to fresh stores as they can in a box hive where there are combs with holes in them. Mr. Langstroth recommended cutting holes in the combs before the bees were put into winter quarters so they could go from comb to comb where there were stores available. "Then", added Mr. Langstroth, with a twinkle in his eye, "the bees have lots of fresh air."

Langstroth made the disclosure of the advocacy of an upper entrance so that fresh air could get to the cluster. He later told how he had packed a number of colonies very carefully but he had used no bottom board on one hive. When he came back in the spring he found all the packed colonies dead except the one without the bottom board.

To sum up Langstroth's recommendations: Let the bees make their own winter nests and don't feed them too late because they cannot then form a clustering space on empty cells of comb. We had fed our bees that winter ('81 and '82) 10 and 15 lbs. of sugar syrup rather late. Langstroth said they had to store this in a hurry where they could use it, and closed up a part of their wintering nest.

In verification of this, I had, years afterward, been all over the South and found colonies transferred from box hives (common down there) to the modern movable-frame hives so that honey could be extracted from the combs, or section honey produced.

After his loss in '82, Father, taking the cue from Langstroth, went out among the farmers and got all the box hive colonies he could find. He found most of the colonies of black bees were in pretty good shape. He brought them home, shook them on top of the double-walled chaff hives, transferred the combs containing good brood frames, and started anew with 100 colonies of black bees, each with an Italian queen.

I haven't space to go into the

whole argument, but Langstroth's solution of cutting holes in the combs was not practicable. The average beekeeper would not mutilate a good comb because it would be filled with drone comb in a honey flow.

A possible solution lies in the tendency nowadays for some to use shallow brood chambers approximately 6 inches deep. These shallow brood chambers are being used more and more as time goes on, not only for the storage of extracted honey or sections in the comb, but even for actual brood rearing. Adding over a full-depth Langstroth hive a half-depth super containing sealed honey, or as Demuth would say, a food chamber light in weight, provides a space underneath in which the bees can move laterally in all directions. Suppose there are two or three of those shallow chambers and the bees are clustered there and the stores are in two or possibly three of those supers, the bees will build up rapidly and during the cold weather they can move back and forth through the bee spaces between the sets of combs to fresh stores.

Shallow supers are easier to lift and the combs can be uncapped more readily. Many people cannot lift 70 or 80 lbs. but can handle a lighter unit.

Dr. C. L. Farrar of the Experiment Station at Madison, Wisconsin, has been advocating shallow, but square, brood chambers. Each of these units, however, weighs about as much as a 10-frame Langstroth hive body. For a strong man this is not objectionable but from the standpoint of the manufacturer, lumber cannot be cut to advantage if the main cuts are all the same length.

To summarize the matter thus far, Langstroth's chief recommendation for good wintering was to let bees make their own brood nests as far as they could with straight combs. It is impracticable to let them build their own combs for we cannot use such crooked combs as the bees build for extracting purposes, and what is worse, we cannot remove those combs. By adopting shallow brood chambers it is perfectly possible to provide air spaces in a horizontal line so the bees can move to fresh stores. That seems to be the solution.

Now please turn to my article which appeared in the June issue concerning the failure of the divisible brood chamber hive. The whole idea was to contract the brood nest by reducing the hive to one section at the beginning of a honey flow. This materially cut down the force of emerging bees when the brood sections were removed. The idea was to force the field bees into the comb honey sections, but by so doing, immediate reenforcements of fresh bees were cut off.

On the other hand, if the queen had been allowed three supers for brood rearing, or better yet, four, there would have been a tremendous force of bees to produce a crop. If instead of contracting the breeding capacity it had been expanded, the hive without the thumb screws might not have gone into oblivion. Today some beekeepers are working toward shallow brood chambers.

There are other answers as to why we lost bees last winter. I suspect in some instances there was a shortage of stores, or rather they were so far from the cluster that during protracted cold spells bees consumed the honey in combs where the cluster occurred and were unable to move to where fresh stores were located.

The other answer might be that the solution lay in the packing or lack of proper packing. If the packing is not too heavy and if provision is made for moisture to escape, the bees will be better able to hold their cluster temperature for safe wintering than if no packing at all were used. The difficulty is in applying means of ventilation.

It is good beekeeping practice to reserve combs of sealed honey and if there is not enough to go around, one can place on top of every colony that is short of stores one of these supers of honey. It may be placed on top of a story and a half hive or two sectional hive bodies.

Sugar syrup is a good food but it does not contain the food element necessary to bees and does not equal ordinary combs of honey that contain some pollen, and if one wants to succeed in building up the colonies he will have to have combs of pollen on the side in reserve, or feed artificial pollen.

The solution of wintering means two-story colonies full strength with

(Continued on page 591)

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Editorials

Louisville, Kentucky, Honey Advertising Project Last winter at the National meeting in Salt Lake City there was born the idea of launching a honey advertising campaign for six months or until the amount of money appropriated by the National Federation is exhausted to see what could be done to popularize honey in an average city.

After exhaustive study and market research in nearly a score of large cities, the Louisville, Kentucky, market was selected to carry the initial campaign. Many elements were considered in making the selection.

The campaign comprising 13 advertisements, each differing, covering 200 agate lines, which is equivalent to 7¼ inches deep by 2 columns wide, was started August 5. This will appear every other week. On alternate weeks the food pages of the paper will carry small ads, one column wide by 2 inches deep.

George C. Nagel and Associates of St. Louis, Missouri, are in charge of the advertising campaign. We shall await with interest the results of this campaign.

Honey Selling Aid At a recent meeting one speaker brought out the fact that handing out a recipe leaflet with each sale of honey helps very materially to increase consumer interest in the product. This is certainly a fact. Suitable printed matter on honey, including various recipes, may be obtained from the American Honey Institute, Commercial State Bank Building, Madison, Wisconsin.

Honey at Fairs We have received some suggestions from beekeepers over the country with reference to the feasibility of taking advantage of fall fairs to display honey. Bee and honey displays are found at a number of fairs throughout the country. The thousands of people that visit a fair have an opportunity to see honey neatly displayed, as well as to pick up printed matter on bees and honey.

It is an advantage to have a live-bee observation hive to attract the attention of people passing by. Most people will stop to look when they see something moving. It is important that the person or persons in charge of the booth be quite well versed in beekeeping to answer the many questions asked each day.

It is hoped that beekeepers may take advantage of this golden opportunity of displaying honey at fall fairs so that people over the country may become more bee and honey minded.

DDT not so Dangerous as Arsenic When DDT first came on the market it was feared that heavy losses might be suffered by many beekeepers. Recent work done by S. E. McGregor and C. T. Vorhies of the Agricultural Experiment Station, University of Arizona at Tuscon, shows that DDT, if properly applied, may cause a slight loss of bees but is not considered dangerous.

On the other hand, where arsenic is used many bees are killed. Arsenic may be stored in the pollen, which will cause fatalities in bees for months to follow. The beekeeper, therefore, loses both his colonies and his combs from arsenicals.

It is felt that the slight loss of bees occurring where DDT is used is offset by the increased number of blossoms saved from harmful insects by the proper use of DDT.

Weevil on the Wane At the North Dakota and Minnesota summer beekeepers' meeting held in Detroit Lakes in Minnesota on July 22 and 23, Dr. Alex Munro of Fargo, N. D., stated that sweet clover in the Red River Valley is coming back and that this plant is seen along roadsides, waste places, railroads, and in fields in greater quantities than for a number of years. The sweet clover weevil has accounted for its disappearance to quite an extent in recent years.

The damage by this insect is mostly caused by the adult. It is a small snout beetle rarely seen as it drops from the plant when disturbed. The weevil eats crescent-shaped pieces from the side of the leaves of sweet clover. The next generation of adults, if numerous in the fall, often

cause serious injuries to new seeding of sweet clover later on. The larvae develop in the ground, feeding on roots, but do little damage. However, plowing sweet clover fields as early as possible after the crop is on may reduce the number of beetles in the fall.

Dr. Munro believes that the introduction of a parasitic insect brought from Europe to counteract the development of the weevil is more effective than the use of chemicals. Some experimental work is being done along this line at present.

It is hoped that in some way this pest may be kept under control in order that the sweet clover so badly needed by farmers and beekeepers will have a chance to once again become plentiful, as it was in the early '20's. If and when that day comes, commercial beekeeping is likely to thrive.

Dr. Munro mentioned the fact that toads eat sweet clover weevil. That being the case no beekeeper should ever molest a toad, even though he does eat bees once in a while.

Another Argument Against Roadside Spray It was brought out by one of the speakers at the Minnesota meeting that when clovers are removed from roadsides by spraying, quack grass will spring up and spread onto nearby farms. Quack grass cannot be destroyed by commercial sprays. Therefore, its spread could become a nuisance to farmers.

As mentioned in a editorial appearing in the April, 1948, issue of Gleanings, denuding roadsides of dandelions and clovers with the possible exception of tall sweet clover at highway intersections, seems uncalled for.

We do hope that county and state beekeepers' associations may approach highway commissioners in the proper manner to seek their cooperation in helping to maintain honey and pollen plants along highways, so long as their growth does not interfere with safe driving.

July Statistical Report on Bees and Honey This report, as of July 22, 1948, put out by the United States Department of Agriculture, Bureau of Agricultural Economics, Washington, D. C., is worthy of consideration.

The estimated number of colonies in the United States on that date was 5,718,000 which is 3 percent lower than the number on hand a year ago. This decrease in colonies was due mainly to winter loss, and to the fact that low honey prices offerred beekeepers less incentive to increase their holdings.

Winter losses of colonies were about 20 percent, which is 5 percent higher than the winter of 1946-1947. The condition of colonies July 1 was slightly above that of a year ago.

In order to increase the total number of colonies in the United States to meet the pollination demands for bees from fruit growers and farmers, it is going to be increasingly necessary to encourage and help the beginner beekeeper as well as the commercial producers in every way possible to secure needed bees and equipment for the season of 1949. It is hoped that honey prices may be maintained at a level that will give beekeepers at least a living margin of profit.

The beekeeping industry is an important branch of agriculture and it must continue to develop in the future.

Langstroth Memorial Meeting On Sunday afternoon, July 18, on the beautiful lawn of the Second Congregational Church in Greenfield, Massachusetts, there was gathered a crowd of beekeepers from half a dozen states, the occasion being the honoring of a former pastor of that church, Rev. L. L. Langstroth, who finished his pastorate there just a hundred years before, in 1848.

Dr. E. F. Phillips read a fitting biographical sketch, tracing the history of Langstroth's invention of the bee space and movable frame, and of the writing of his great book (see page 550). The invention, which made commercial beekeeping possible, and the book that has been reprinted and revised and is still an authority on bee behavior — these came so soon after the closing of the pastorate in Greenfield that the meeting could almost be said to be a centennial of the movable-frame hive and "Langstroth on the Honey Bee".

A beautiful copper plaque was prominently mounted in granite and set upon the church lawn. This was

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donated by the beekeepers of the United States and dedicated on that occasion.

Colony Morale This seems to be a subject about which comparatively little is known. We do know that some colonies and some strains or races of bees work with greater vigor than others.

In the human realm some people are just downright lazy. They will not do any work unless they have to. This same trait, if it may be called such, is found in honey bees. Some colonies work well and put up good crops of honey when available while others are indolent and scarcely store enough during the season for winter food. Obviously, such colonies are unprofitable.

If it were possible to have every colony in an apiary as good as the best, beekeepers could feel reasonably sure of securing at least some surplus honey every season. We recently talked to a beekeeper near Medina who said that his small apiary of 30 colonies would not average over 15 or 20 pounds per colony. He did have one good colony that put up about 100 pounds of surplus clover honey. It would be interesting to actually know what made this difference in production. It is possible that bees from other hives drifted into the hive containing this high-producing colony. This sometimes occurs unbeknown to the owner of the bees.

Colony morale which may be said to mean the characteristic of bees to work vigorously, may be improved by proper manipulation of hives. If, during the spring months and prior to the major honey flow, colonies can be kept on the upgrade and prevented from reaching their peak of strength too soon before the major honey flow starts by dividing or taking away some brood, it has been our experience that most colonies are likely to store a good crop of surplus if it is available.

It seems probable that the bee breeding project now being carried on by the Honey Bee Improvement Cooperative Association in cooperation with the United States Department of Agriculture, on Kelley's Island, Ohio, may result in improved strains of bees. Already quite a number of queens have been produced and these queens are being tried out by beekeepers in order that they may be compared with other strains in the same apiaries.

It seems possible that in the near future per-colony averages of surplus honey may be increased, due in part to the development of strains of bees superior in honey-gathering qualities.

Prospects for Fall Honey Flow While fall honey may not be considered as good as summer honey by some people, it is welcomed, especially in regions where little if any summer surplus was stored.

There appears to be an advantage in having bees where there is a summer flow as well as a fall flow. The fall honey flow, if accompanied by pollen (and it usually is) helps to assure an abundance of stores for winter, and strong colonies of bees to go into winter quarters.

In the event that the crop of clover honey may not be as large as anticipated, a good crop of fall honey could doubtless be used to advantage.

It has been our experience that during the past few years when white honey was none too plentiful, some customers who had not used fall honey were induced to try it and as a consequence liked it, and now ask for it.

As brought out in a recent editorial, the quality of honey should not be judged on a color basis, but rather on flavor. Some white colored honeys are rather insipid and do not have the flavor that some darker colored honeys have. It is a fact, of course, that some dark honeys are rather inferior in quality and are perhaps distasteful.

In this section of the country prospects for a fall flow are encouraging, especially since heavy rains have fallen recently. It is possible, therefore, that sections of the country where fall honey plants abound may again be favored with a good crop. If so, such honey will certainly be better than no honey at all and the public may find that the darker-colored honey, while it may be different in flavor, is palatable and satisfies that craving for sweet. And let us not forget, the darker honeys are said to have a higher mineral content than whiter honeys which means they have more food value than the lighter colored honeys.

From North, East, West and South

SOUTHERN CALIFORNIA, Aug. 1

Weather continues warm with quite a few heavy showers throughout the mountains and desert country in southern California. While these showers are sometimes what are called "cloudbursts" and often cause considerable damage to highways and railways, still they are more or less local in extent. If a fellow is lucky enough to be located in the desert buckwheat country where three inches of rain happened to fall—well, he should get some honey.

Market: There does not seem to be an active demand for honey but we would say the price is around 12 cents. There is a strong Cooperative with headquarters at Colton that has come into the picture in the last year or two. Just what effect that will have on the price of honey, if any, we are unable to say.

Honey Crop: Our former letters have told of the crop in the South. We were talking to a man here in San Luis Obispo, which might be included in southern California, who keeps 100 or more colonies of bees. He has a very handy little shop and was busy making—well you guess. A violin. He said he had some bees that he liked to work with but every man should have a hobby. I agree with him. Two boys from the California Polytechnic School here were observing him and are going to make one for themselves. This man takes a class occasionally, together with their teacher, to the nearby hills and shows them how to cut a bee tree and collect the bees and put them into a hive. Sounds interesting to a fellow like me who got his start in beekeeping the same way. Some of the bees in the territory south of here made 80 pounds per colony on the sage and early mustard and are still working on the tarweed and cascara and have some 25 pounds for winter stores. This is accounted for from the fact that much of this country had from one to two inches of late rain that we did not get farther south.

Bees that were moved from the orange and sage ranges to the cotton, alfalfa, and thistle give promise of having good returns for the efforts put forth by the beekeeper. The flow from these sources is starting and should do well through August and well into September.

Miscellaneous: The July 15th copy of the Riverside Enterprise had quite an article on the effect of DDT when and where it gets on the bees. This happened in Oregon: "Not long after this statement a state survey revealed that a good part of the state beekeepers were pulling stakes and moving elsewhere. The reason—too many bee deaths from poisonous channels". Dr. H. A. Scullen who works at the Oregon Experiment Station comes back with the statement that DDT isn't so bad if properly used. It is a problem that is going to take time and patience to work out. There is no probability of the agriculturist giving up spraying to save his crop and on the other hand the beekeeper has no intention of giving up his method of obtaining a livelihood. There must be a middle ground whereon both can agree. Each needs the other to successfully carry on his business.

"Some beekeepers don't tell all they know", page 370, June Gleanings. This article will repay reading several times. How true some of the statements are can only be verified by long years of experience. To the casual observer a location may seem mediocre while the beekeeper with years of experience will secure very satisfactory returns. It seems to be one of the inborn characteristics of most of us to feel that the other fellow has a better location than we have. We have tried to figure this out on the orange and have come to the conclusion that with all things favorable, every one will get some honey—the big colonies and skillful operatives getting much the best of it. All too many colonies must build up on the honey flow instead of for it.

We are still at San Luis Obispo. A ten-pound grandson appeared since our last letter. We are wondering if

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he will get as much pleasure out of the bees as his Grandpa.—L. L. Andrews, Corona, Calif.

NORTHERN CALIFORNIA, Aug. 3

Weather: Fair and warmer, with moderate winds, has been the order of the day for the past month. Temperatures have been only moderate and not on the hot side. Conditions, therefore, have been generally favorable for bee flight and for nectar secretion in irrigated areas and where soil moisture is sufficient to stimulate nectar secretion. We have not had the heat waves or unseasonable cold spells one might expect in this year of record-breaking weather.

Plant Conditions: The yellow star thistle of the North is in full bloom and the nectar flow from this source has been satisfactory in most places. In dry areas, the flow will be shorter than usual because the plants are already drying up from lack of soil moisture and a shallow root system. Alfalfa is yielding well in the seed areas and the set of seed seems to be slower in some sections than last year. Observations in seed areas where competing plants, such as mustard and other clovers, are not available show a good percentage of field bees gathering pollen. Carpet grass or Lippia, has yielded well in the bottom lands along the Sacramento River. Many roadsides have been oiled or burned over to destroy the "weeds" which would otherwise provide sources of much pollen and nectar for the pollinating insects.

Number of Colonies: The California Crop and Livestock Reporting Service indicates that there was a 6 percent reduction in the number of colonies this spring than was reported a year ago. The estimate of 442,000 colonies is the lowest inventory since wartime increases began. Chemical hazards, unfavorable weather conditions during the past three years, and the prospect of lower honey prices undoubtedly were contributing factors. A number of beekeepers have established apiaries in other states. California can ill afford to have her bee population fall below a normal average for there are more than 700,000 acres of cultivated crops in California which are definitely benefitted by the presence of honey bees and other pollinating insects. High prices of all supplies the beekeeper needs and the inability to get comparable prices for honey at the wholesale level—with the retail level still remaining favorable—has made beginners hesitate on entering the field of beekeeping and has caused established beekeepers to "tighten their belts" and **to attempt to produce better colonies in fewer hives.**

Honey Production and Marketing: The honey production in California this year is likely to be somewhat better than last year but will be below the average of 10 years. Conditions in the "back country", where beekeepers depend on native plants, are not favorable for honey production and many valley locations are too crowded with apiaries whose owners will be satisfied if the bees will make a good fill-up for winter. Honey is being extracted in the North, primarily from alfalfa, the clovers, and star thistle. Lima beans are yielding and this desirable honey will be ready for market by the time this comment gets to press.

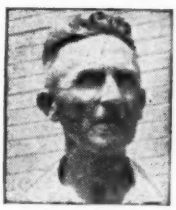
The price of honey at the retail level seems to have settled within the OPA range when the beekeepers received 12 cents per pound, f.o.b. their warehouses. But offers of 8 and 10 cent honey are far more frequent than 12 cents and some beekeepers are holding their honey in the hope fall prices will be more favorable.

Honey movements have improved and one of the largest cooperative packers stated recently that the movement during June was one of the best in several years. The quality of honey now found on the shelves is better than a few weeks ago and this undoubtedly has had some influence on improving sales.

I recently had the pleasure of visiting the "Farmers Market" in Los Angeles and of seeing a booth in which an attempt is being made to collect for sale representative samples of honey from all of the states. Incidentally, the Farmers Market in Los Angeles is worth seeing. It is not a farmers' market but rather a series of small stores where quality

is the watchword. Prices are higher but displays are artistically arranged and the quality of much of the mechandise obviously justifies the prices. (However, I could'nt see the "quality" in the $1.65 steaks). The honey booth is attractively arranged and the lady in charge is genuinely interested in quality honeys and in acquainting customers with the inherent value of honey as an article of diet. The industry could profit by duplications of this effort in all of our larger cities.—J. E. Eckert, University of California, Davis, Calif.

TEXAS, August 4



Weather: Early July temperature was agreeable with a gradual temperature rise toward the close of the month. In general the temperature was normal without extremely hot weather. The summer rains which began in June and extended into July brought the rainfall for the month above the normal.

Bees and Honey Crop: Field crops and pastures were greatly benefitted and bee plants including native brush, which were disappointing thus far, came into bloom. Colonies which had greatly slackened brood-rearing built up with energy seldom exhibited in July. Sorghum fields yielded abundant pollen and surplus honey was gathered from white brush and brasil, over much of southwest Texas. A crop failure was averted in many apiaries in this area and at least a small crop is now ready for extracting. Reports from north Texas indicate a rather light crop due to general failure of bloom of sweet clover. A few beekeepers averaged one third super per colony. Cotton in this area is more promising with some surplus still expected and cotton insects did not require extensive dusting for their control. No recent report on the honey crop has been received from northwest Texas, but the practice of chemical defoliation of cotton to hasten maturity of the bolls precludes the chance of a late flow from cotton in that area. The over-all picture of the honey crop in Texas indicates the smallest crop in many years.

Market: While no improvement is noted in the honey market, retail grocers are carrying a larger supply of honey than in many months, with retail prices ranging from 24c to 32c for 1 lb. glass, and $1.10 to $1.30 for 5 lbs. Mexican honey of dark color but good flavor is selling at 15c in 1 lb. jars.

Miscellaneous: With a short crop, slow sale, and low price of honey, many beekeepers who entered the business in recent years are becoming discouraged and are ready to sell out. The total number of colonies in Texas for 1948 is 3 percent less than the number last year, indicating a smaller number of new colonies than were lost from starvation, robbing, etc., according to U.S.D.A. estimates.

Beekeepers' Field Day, held at the Apicultural Research Laboratory on July 25 was attended by over 80 beekeepers from southwest Texas to view a demonstration of the work in progress. An interesting feature of the program was a smoker lighting and bee caging contest. The annual meeting of the Texas Beekeepers' Association will be held at A & M College on October 18 and 19. Beekeepers are urged to remember the dates and to plan now for attending the meeting. The program will be announced later by L. A. M. Barnette, Secretary, 4801 Linden St., Bellaire, Texas. — A. H. Alex, San Antonio, Texas.

COLORADO, August 5

Weather: These reports would be infinitely more valuable to our fellow beekeepers if we could foretell what the weather is going to be instead of telling what it has been; however, since we can't do this we go ahead and report the "unusualness" of the weather for the season just past. Truly the summer of 1948 has been one of extremes. Only the last month have we gotten down to what is usually accepted as regular western Colorado weather. The winter and early spring were extremely wet which was fine. (It is never too wet here.) But then came the driest May in our experience here, only a trace of

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moisture at Grand Valley, and no more than one half inch was reported anywhere in the area. By late June it was very dry and we got a good general rain which saved the day. We have a saying that it never rains in June. Since July 1 we have had late afternoon showers which we count on every year. These keep the clover fresh and give the bees and beekeeper a rest most every day where they occur. Where the showers missed, the clover is now done and colonies have no future for honey gathering unless second cutting alfalfa is allowed to bloom by the absence of insect pests and the still more deadly tractor mower.

Crop: Our own crop is very spotted and reports from other beekeepers indicate that the condition is general. More white sweet clover was present than for many years and we are now wondering how much of that delicious white honey we missed by not have the bees to gather it. Too often we have only the proper number of hives when it is the colony of bees in the hive that determines how large the crop will be. Our No. 1 crop limiting factor is still queens. The first cost of a poor queen is her smallest cost, and consistently good queens would be cheap at a price equal to the value of 20 pounds of honey.

On the whole, I believe Western Colorado will have an average crop.

Market: What the 1948 crop brings will largely depend on how it is sold. The attitude taken by the beekeeper may have much to do in raising or lowering the level at which honey moves. **The price of honey is too low compared with other commodities.** Live hogs sold yesterday in Chicago for 31c per pound. It is a sad picture for a honey producer when a carload of dirty hogs commands three times as much per pound as a carload of good honey—honey which is a hundred percent edible, high-energy food. It appears that we have failed miserably in telling the public what we have to offer.

Most of our production costs have risen again this year. It is inevitable that they should. The only way we can beat that is by producing more pounds of honey with less labor. If that means by using more efficient methods it is fine, but if we do it by hiring less help and overworking ourselves as many beekeepers are now doing in an effort to keep down costs we'll pay for it in the end anyhow.

There seems to be little source for pride in being part of an industry that depends on a war for prosperity and goes into near bankruptcy as soon as peace is declared. It would not be so tragic if it were unavoidable. Too few people yet know the value of honey in the regular diet, and look on it as either a luxury or a substitute. Enough of the right kind of advertising can change this. We have advertised ourselves into being the world's greatest soft drink consumers and cigarette smokers— why not honey eaters?—John W. Holzberlein, Jr., Grand Valley, Colorado.

OKLAHOMA, August 1

Weather: The year's rainfall up until June 3 measured 11.05 inches. Two heavy rains and a few showers brought us a total rainfall of 4.33 inches during May, still almost an inch short of the 40-year average for the month, but enough to help county crops and improved stock water. The 40-year average for the first five months is 14.06 inches. April was a hard month for the county with only .85 inches of rain compared to the April average of 4.12 inches. Farmers were asking for more rain on June 11, when we got a nice shower with rainfall measuring 1.01 inches. July brought over 6 inches of rainfall.

Plant Conditions: The lack of enough moisture in April and May was bad for our hairy vetch crop. Farmers did not have enough seed to combine. However, later rains took care of our clover crop to good advantage. Honey plants as a whole over the county are looking good. We are hoping for a good fall flow.

Bees and Honey: Today the U. S. Department of Agriculture report showed a decline of 6000 bee colonies in the state this year. Last year there were 64,000 colonies in Oklahoma, but a slow market in 1947 and a surplus of honey made many beekeepers give up their hives.

Large stocks of old honey are still on hand. The report also showed that a total of 58,000 colonies still compares favorably with the 35,000 in Oklahoma in 1939.

Miscellaneous: Our Stephens County Beekeepers' Association is doing well with the help of our County Agent, Fred Huffine, who has secured Mr. C. F. Stiles, the Extension Entomologist, for our monthly meetings. Mr. Stiles has attended several of our meetings and never fails to bring along a film on bees. We are making plans for a booth exhibit at the County Fair, including beekeeping equipment and honey, and, of course, several individual entries on honey.—V. K. McMasters, Duncan, Oklahoma.

IOWA, August 5

Weather: Marshall County is considerably short of a normal amount of moisture. We have had enough light rains to keep the main crops in good condition but no surplus moisture.

There was very little white clover and alsike as it was mostly killed in last summer's intense heat and the unfavorable winter got most of what was left, and on top of that the dry weather, and the hot sun of the last of June and the first part of July has killed most of the new seeding for this year, all of which doesn't look too good for another year. However, some white clover seems to be trying to make a comeback. Without more moisture I cannot see how it will do it.

Crop: I have seen no new honey on the market at this writing. Last year there was plenty of new honey at this date. Some beekeepers have reported taking off some honey, but did not say from what source.

There is some old honey on the market, mostly dark. One firm is offering it at 99c per 5 lb. pail and a little old comb marked 45c per section. There are no large stocks in the stores notwithstanding the reports showing a considerable carry-over from last year. Probably the abundance of sugar has lessened the demand considerably as well as the too high prices asked last year. Some of it never should have been put up for the retail trade which did not help make repeat customers. Some beekeepers, it seems, never learn that quality counts and brings customers while poor quality works just the opposite.

We are predicting a light crop of light honey, but with a favorable fall there is likely to be a fair crop of heartsease honey.—W. S. Pangburn, Marshalltown, Iowa.

NEW YORK, August 5

Markets: Honey markets are still demoralized, and demand is slow and limited. Retail prices from producer to consumer are generally higher than those through commercial channels, ranging greatly from 75 cents to $2.00 per five pound pail. This price is depending more on what the producer is willing to accept rather than what the consumer is willing to pay.

For some time we have been selling orange honey for 25 cents per pail more than clover. Recently we cut the price of clover 25 cents hoping to step up our sales of clover, but the results were just the opposite. We have been selling more of the higher priced orange honey and less of the clover, which in our judgment is the better honey.

The slack consumer demand for honey seems not to be stimulated to any great extent by cutting prices below a reasonable level of competing products. Much of the present demoralization of honey prices and honey markets is caused by the confused conditions within the industry. If this business of beekeeping, and the honey industry in general, can be arranged in a satisfactory manner there will be a very bright future in the business.

I believe that the greatest hope for sound marketing of honey lies in cooperatives with an alert and loyal membership, capable directors, and a correctly managed counsel led and guided by the National Council of Honey Cooperatives. Members must see to it that they have good directors who will see that there is good capable management. Unfortunately, some of our largest cooperatives have been contributing to the present chaos. Had these managers followed their own council as expressed through the Na-

XUM

tional Council of Honey Cooperatives, this situation might have been much better. Managers must have the long range welfare of the industry at heart, must be capable to make decisions weighed with well-balanced judgment based on all phases of the industry.

Honey Crop: New York again has a very small — perhaps we should say normal—crop, for small crops are becoming normal. We have not seen a fair crop since 1941. Disappointment is high among beekeepers of this state as prospects early this year showed signs of a prosperous season, and no one has been able to explain why it did not materialize. Prospects for summer and fall flows are now looking very promising. There is an average acreage of buckwheat, goldenrod, and aster.—Howard Myers, Ransomville, N. Y.

The Cuyahoga County (Ohio) Clean-Up

By E. R. Root

The man who brought about the clean-up of bee disease in Cuyahoga County is George J. Siedel, Strongsville, Ohio. This county has between 900 and 1000 beekeepers and 4000 to 5000 colonies. The reduction and almost elimination of disease in the county has contributed a remarkable record, considering the large number of small producers.

In Cuyahoga County in 1931, 87 out of every 100 colonies inspected were found either dead or diseased; in 1948, only 6 out of 149 are not clean.

When the suggestion was made that he become bee inspector, he thought he might like to tackle it. He had held numerous city and county jobs so that he knew personally all of the county and city officers. He and a committee of beekeepers presented a petition for funds. Since many of these officials were fruit growers, it was not necessary to argue the importance of bees for the pollination of blossoms. The committee asked for enough money to clean up the AFB the first year. Their request was granted.

In order to be successful an inspector must have a large amount of diplomacy when he finds it advisable to burn so large a percentage of bees. He did not make a complete clean-up the first year but continued burning each season until the above results were achieved.

I asked Mr. Siedel if he had tried the sulfa treatment which has apparently made such a wonderful record. He said he had not. In spite of all the good things said about it, he thought it a mistake to feed medicated syrup to a colony rotten with disease because during

George J. Siedel

the action of the drug the rotten mess of combs would remain a continued source of infection to nearby colonies. *Furthermore, he said that under State Law he was required to burn all infected material.

I then asked him was it not a fact that many beekeepers fed medicated syrup (½ gram of sulfathiazole to a gallon of syrup) as a means of preventing disease from getting into a colony where no trace of AFB could be found. He said he had no way of knowing how far nor how much the preventive treatment brought about results as recorded above. I then asked him the direct question: What do you think of the new sulfa treatment? His reply was, "From what I hear, with the treatment there is a recurrence; when I burn I leave no trace of infection."

[*Dr. Haseman, who introduced the sulfa treatment, recommends that all rotten and badly infected combs be burned before giving the syrup. The purpose is to avoid danger of other bees obtaining infected honey. I am of the opinion that this is a wise recommendation.—E.R.R.]

Just News

The Westchester County Beekeepers' Association will hold a joint picnic-lunch meeting with the Bronx, Long Island, and North Jersey Beekeepers' Associations, beginning at 10 a.m. on Sunday, September 12, at the Manor Apiaries, River Edge Manor, New Jersey. Mr. R. Parker Hamilton, who operates the apiaries, gives directions as follows: Follow River Road to Teaneck and Bogota and go east on Monmouth Avenue in New Milford. Members and others interested in attending can plan to spend an interesting day as there will be speakers and field demonstrations. In case of rain the meeting will be held in the Court House building at Hackensack, New Jersey.—B. F. Miller, Publicity.

* * * * *

The Hampden County Beekeepers' Association will hold its Annual Picnic and Field Day in Westfield, Mass., at Stanley Park on Sunday, Sept. 26. Activities will start at 10 a.m. under the direction of Cecil Page who has arranged a program of sports for young and old. We have several well-known speakers, among whom is Dr. Frank R. Shaw of the University of Massachusetts. Dr. Harold J. Bennett of Hampden, President of the Association, will conduct the business meeting and introduce the speakers. Dinner will be served by the ladies at 2 p.m. All beekeepers are invited to be our guests at this picnic. We guarantee that there will be plenty of everything for all.—Neil Cochran, Director of Publicity.

* * * * *

The Bergen County Branch of the New Jersey Beekeepers' Association will hold a field meeting at Don Bosco Institute, Ramsey, off Route 17, Ramsey Circle, on Saturday, September 11, at 2 p.m. The guest speakers will be Paul L. Holcombe, Supervisor of Bee Culture for the State of New Jersey, who will give a hive demonstration and indicate conditions to be observed in your hives at this season of the year, and Milton H. Stricker, Secretary of the New Jersey Beekeepers' Association and one of the outstanding beekeepers of our state, who will speak on "Fall Management". All interested in beekeeping are invited to be present. If you have any problems, come prepared to ask questions. The meeting will be held, rain or shine. In case of rain the gymnasium is available and movies will be shown.—George F. Emerson, Chairman Bergen County Branch.

* * * * *

The annual meeting of the American Bee Breeders' Association is scheduled for November 18 and 19, 1948, at the Buena Vista Hotel, Biloxi, Mississippi.—J. F. McVay, Sec.-Treas., American Bee Breeders' Association.

* * * * *

Georgia Beekeepers' Association will meet on October 21 and 22 in Moultrie, Georgia. This will follow the Florida meeting held on the 18th and 19th. Beekeepers and friends from other sections of the country are cordially invited to attend the Georgia meeting.—J. G. Rossman, Pres., and Robert DeWar, Sec and Treas.

* * * * *

The following appears in a recent issue of the Canadian Post Office Weekly Bulletin: "Effective immediately, queen bees and their attendant bees may be accepted for transmission over Air Mail Services to places in Canada and in the United States when prepaid at the regular air mail rate of postage". The bulletin also states that" the postal service will do all that is possible to ensure the safe arrival of these shipments at destination" but "the Department will not be responsible for any deterioration or loss that may occur en route due to weather conditions or other reasons beyond control". Queen bees only may be shipped via air mail. Honey bees will not be accepted. This concession by the Postal Authorities is the result of representations made by the Canadian Beekeepers' Council and those wishing to avail themselves of this service may now do so.—C. B. Gooderham, Dominion Apiarist.

* * * * *

On November 12 and 13 the Conference of Southern Beekeepers is being held at Poinsett Hotel, Greenville, S. C. Prominent bee men from all over the country are expected, and a practical program of interest to all is being arranged, according to

(Continued on page 593)

Buy and Sell Here

CLASSIFIED ADS

Only responsible advertisers and honest advertisements will be admitted to these columns. References required from new advertisers not known to us. Rate:—15c per counted word, each insertion. Each initial, each word in names and addresses, the shortest word such as "a" and the longest word possible for the advertiser to use, as well as any number (regardless of how many figures in it), count as one word. Copy should be in by the 10th of the month preceding.

HONEY FOR SALE

WE BUY AND SELL all varieties of honey. Any quantity. Write us for best prices obtainable. The Hubbard Apiaries, Manufacturers of Bee Supplies, Onsted, Michigan.

HONEY, can or carloads, good quality. Russell D. Smalley, Beaver, Iowa.

FINEST QUALITY Northern New York White Clover Honey in 60's. Ideal for roadside stands. A. J. Wilson, Hammond, N. Y.

Raspberry, milkweed, clover honey in retail packages or bulk. Write for prices. Northern Michigan Apiaries, Petoskey, Michigan.

CLOVER HONEY — White to water white, 12c lb.; in carload lots, 11c a lb. Busy Bee Farm, North Abington, Massachusetts.

NEW CROP of honey shipped daily from producer in Florida. Pure orange blossom, 5 lb., $2.25; Pure Florida comb honey, 5 lb. pail, $2.75. No C.O.D. orders, all shipments prepaid. E. R. Raley, Daytona Beach, Box 1610, Florida.

HARRIS again has the usual quality fancy clover honey that we have produced for 70 years. J. N. Harris & Son, Saint Louis, Michigan.

FOR SALE—Amber extracted honey in 5-lb. glass jars; Also white clover in new sixties. State amount wanted. L. S. Griggs, 711 Avon St., Flint 3, Mich.

AMBER HONEY, LIQUID OR CRYSTALIZED, $5.40—60 lb. can f.o.b. Doylestown. Sample 10c. Dr. G. T. Hayman, Doylestown, Pa.

NO. 1 CLOVER comb honey, $7.95 per case. Engle's Aparies, Kearneysville, W. Va.

FOR SALE—Fancy grade Georgia tupelo gallberry chunk comb honey in five-pound square jars, six to case. Valdosta Honey Co., Valdosta, Georgia.

NEW CLOVER HONEY in ton lots. What is best offer f.o.b. warehouse or delivered? E. L. Gamble, Adams, Route 1, N. Y. Phone 457 Henderson, N. Y.

HONEY, fancy clover, white to water white, extracted, 15c per lb. in 60's. Lose Brothers, 206 E. Jefferson, Louisville, Ky.

HONEY AND WAX WANTED

BEEKEEPERS TAKE NOTICE—We can not guarantee honey buyers' financial responsibility, and advise all beekeepers to sell for cash only or on C.O.D. terms except where the buyer has thoroughly established his credit with the seller.

WANTED — White and amber honey, any amount. D. F. Treap, 316 Keenan Ave., Cuyahoga Falls, Ohio.

HONEY—Carloads or less. Mail sample, price, quantity. Konces, North Abington, Mass.

WANTED—EXTRACTED HONEY— Clover or light amber. C. H. Denny, 483 Moody St., Akron, Ohio.

CASH FOR BEESWAX. Write as to quantity and we will quote price. Muench-Kreuzer Candle Co., Inc., Syracuse, N. Y.

CASH FOR YOUR HONEY — Extracted or comb. Regular trade, send sample. 60-lb. cans furnished, if desired. W. R. Moomaw, Stone Creek, Ohio.

HONEY WANTED—All grades and varieties. Highest cash prices paid. Mail samples. State quantity. HAMILTON & COMPANY, 1360 Produce St., Los Angeles, Cal.

COMB HONEY WANTED—Advise quantity, grade, price wanted, and how packed. F. H. Hauck, P.O. Box 84, Kew Gardens, N. Y. Bank reference furnished on request.

WANTED—Clover and buckwheat honey. Send sample and state delivered price. Eastern Food Products, 115 Division Ave., Brooklyn 11, N. Y.

HONEY AND WAX WANTED. Mail Sample. Advise Quantity. BRYANT & SAWYER, 2425 Hunter St., Los Angeles 21, Calif.

WANTED—All grades extracted or comb honey, carloads or less. Honeymoon Products Co., 39 E. Henry St., River Rouge 18, Mich.

WANTED—Chunk comb or section honey. Clover only. Any quantity. Lose Brothers, 206 E. Jefferson St., Louisville, Ky.

FOR SALE

I sell best bee hunting outfit. W. Grover, Bristol, Vermont.

Send for prices on paper shipping cartons. See display advertisement. Roscoe F. Wixson, Dundee, N. Y.

QUEENBEE PAINTING OUTFIT, $1.00; colony records, 10c-15c postpaid. Southwick Apiaries, Waban, Mass.

WE CARRY a full line of ROOT QUALITY Bee Supplies. Prairie View Honey Co., 12303 12th St., Detroit 6, Mich.

WRITE FOR CATALOG — Quality Bee Supplies at factory prices. Prompt shipment. Satisfaction guaranteed. The Hubbard Apiaries, Manufacturers of Beekeepers' Supplies, Onsted, Mich.

FOR SALE—40 CASES USED 60's, 2 cans to case, 40c f.o.b. Doylestown. Dr. G. T. Hayman, Doylestown, Pa.

WE MANUFACTURE BEEKEEPERS' SUPPLIES. Write for Price List. Marshfield Mfg. Co., Marshfield, Wisconsin.

FOR SALE—Used 60-lb. cans in wood cases; two cans to case, 50c. Joseph Fekel, Vineland, N. J.

SIMPLEX TRAP clips queens without handling. $1.75 postpaid. INSTANT FRAME SPACERS, eight-nine. Specify size. $1.50 postpaid. Free circulars. George Leys, 36 Jackson St., New Rochelle, N. Y.

FOR SALE—Write for large free Bee Supply Catalog. We manufacture bee hives, foundation, tanks, and extractors. Listing many items not found in other catalogs. Walter T. Kelley Co., Paducah, Ky.

BEEKEEPERS! ATTENTION!! You will never get stung investing in VOHO Entrance Closures. Completely closing a hive in 3 seconds, yet insuring ample ventilation, should appeal to every progressive honey producer. Write, wire, or come a-riding to VOHO PRODUCTS, 2916 Orange Street, Norfolk 2, Virginia. For cash—Uppers, 80c. Lowers a buck thirty, plus postage. Cheaper too in quantity.

YOUR WAX WORKED into high quality medium brood foundation, 22c per pound; 100 pounds, $18.00. Also medium brood foundation for sale at 75c pound. Fred Peterson, Alden, Iowa.

FOR SALE—Root 10-fr. metal covers, $1.00 each; Root 10-fr. bottom boards, 75c each; Root 10-fr. deep supers with nice extracting combs, $5.00 each. Irvin Van Devier, Medina, Ohio.

FOR SALE—A 45-frame A. I. Root radial extractor in good condition. Also a ½ h.p. motor and a 3-inch leather belt. At bargain price. Arthur Armstrong, 335 Warren St., Phillipsburg, N. J.

BEES AND QUEENS FOR SALE

We use all possible care in accepting advertisements, but we cannot be held responsible in case disease appears among bees sold or dissatisfaction occurs. We suggest that prospective buyers ask for certificate of inspection as a matter of precaution.

FINEST ITALIAN QUEENS, $1.50 postpaid. S. J. Head, Crossett, Ark.

NORTHERN BRED ITALIAN QUEENS. Finest quality for production, $1.00 each. Shirl Baker, Rodney, Michigan.

CAUCASIAN QUEENS to fill your hives with gentle, high producing bees. Howard E. Crom, Box 75, Rt. 1, Ripon, Calif.

BOOKING PACKAGE BEES with Caucasian Queen for spring delivery. Write Miller & Evans, Three Rivers, Texas, Rt. 1.

PALMETTO QUALITY three-band Italian Queens. 6 queens, $4.50. Prices on large lots on request. C. G. Ellison & Sons, Belton, S. C.

ITALIAN QUEENS, $7.00 per dozen, every queen guaranteed and sent by air mail. Walter D. Leverette, Box 364, Fort Pierce, Florida.

KING'S QUEENS — Bright Italian and Caucasian, $1.25 each. Reared in three frame nuclei. King-Swan Apiaries, Jeffersontown, Rt. 2, Ky.

HONEY LABELS

Improved designs, embodying color, balance, simplicity, and distinction. Please send for free samples & prices.

C. W. AEPPLER COMPANY

Oconomowoc, Wisconsin

Michigan Headquarters for

Root QUALITY

Bee Supplies

Comb and Cutcomb Packages

Glass and Tin Honey Containers

in all standard sizes

Prompt Service

Michigan Bee and Farm Supply

Box 7 Lansing 1, Mich.

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PATENTS Keep up with the latest U. S. Patents in the beekeeping field by reading our illustrated monthly feature "Patents on Parade". It's exclusive!

Send $2.00 for one year

SOUTHERN BEEKEEPER

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HONEY WANTED

Carloads and less than carloads. Mail sample and best prices in all grades.

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XUM

OHIO
Distributor for the Continental Can Co.

60 lb. Tins—5 and 10 lb. Pails shipped from Chicago, St. Louis or Toledo.

We also carry carloads of **5 lb., 2 lb., 1 lb., and 8 oz. Glass Jars.**

Get our wholesale prices

Complete line of Bee Supplies Root's and Dadant's Foundation

— — — — — — — — — —

We want carloads or less of extracted and Comb Honey. Send Sample. We pay top prices for beeswax. Any Amount.

Alexander Co.
819 Reynolds Rd. Toledo, Ohio

QUEENS
85c each
Gentle, Productive Italians

Also Package Bees
$3.50—2-lb. package
$4.50—3-lb. package

Port Gibson Apiaries
Port Gibson, Miss.

REQUEEN NOW WITH HOLLOPETER'S
NORTHERN bred Italian Queens. A strain of hardy, hard working disease free Italians at their best during buckwheat fall flower flow. With excellent mail service prompt delivery assured. **Prices: 1-24, $1.00 each; 25-49, 90c each; 50-99, 80c each; 100 and up, 75c each. Safe arrival and satisfaction guaranteed.**

White Pine Bee Farm, Rockton, Pa.
(Serving Gleanings Readers Since 1911)

GOOD ITALIAN QUEENS, $1.00 each. D. W. HOWELL, Shellman, Georgia.

THREE - BANDED ITALIAN bees and queens. Prices reduced for summer. Write for information. Cottage Hill Apiaries, Route 2, Mobile, Alabama.

SELECT Young Leather Colored Italian Queens at seventy-five cents each for balance of season. Phillips and Lane, 1944 Douglas Avenue, Clearwater, Florida.

REAL PETS. Brown's non-stinging, non-swarming bees. Good producers. Queens, $2.00. Brown's Apiary, Cape May Court House, N. J.

BREWER'S LINE - BRED CAUCASIAN QUEENS — 90c each; 100 and up, 75c. Brewer Brothers Apiaries, 3616 Caucasian Circle, Tampa 9, Florida.

SURPLUS 400 colonies in Florida full of bees and honey all or any part, suitable for package bees or honey production. Inspection certificate furnished. Information on request. Box 4, Gleanings, Medina, Ohio.

CAUCASIANS. Booking orders for 1949 for package bees and queens. Lewis & Tillery Bee Co., Route One, Box 280, Greenville, Ala.

GOLDEN ITALIAN QUEENS. Extra fine and very gentle. 1 to 25, $1.00 each; 25 up 90c each. Satisfaction guaranteed. Carolina Bee Farm, W. O. Curtis, Mgr., Graham, N. C.

FOR SALE—15 colonies of bees, two-story, and 1500 lbs. of sweet clover honey. Guaranteed free from foulbrood. Kermit Monson, Route 2, Oceola, Nebr.

FOR SALE—55 colonies bees, like-new equipment, 1948 honey crop. No disease. Clifford Whitcher, Williamsburg, Kansas.

FOR SALE—200 colony outfit in Michigan, complete. No disease. Will sell all or part, or will trade for property or what have you? Box 848, Gleanings, Medina, Ohio.

FOR SALE—600 colonies bees, 2-story, heavy with honey, $10.00 each. Also complete equipment for operation of 800 colonies. Inspection certificate furnished. Northern Michigan Apiaries, Petoskey, Michigan.

FOR SALE 140 colonies, 10-frame, 5 supers each. Enough extra equipment for another 40 colonies. 5 supers each; also feeders for all. Two 1-ton honey tanks, pump. About 300 pounds medium brood foundation. Certificate of inspection. Priced very reasonable. Luke Kill, Delphos, Ohio.

ALL NEW in 1946 and 1947. 300 colonies bees, 900 supers, ten-frame, metal-covered hives. Inspection certificate furnished. For information, write D. L. Case, Hancock, Iowa.

Because of serious illness in family, and my age, 86, I am going to sell my apiary and equipment. 2-frame Root extractor and supplies enough for a year. 55 colonies, nearly all 2 and 3 story. Health certificate furnished. I. H. Hoffman, Califon, N. J.

MAKE OFFER—400 2-story 10-fr. colonies. Last and this season queens. Plenty winter stores. 1000 supers 9 combs, wire queen excluders, bee escapes, 30-fr. extractor, electric motor, pump, 300-gal., 100-gal. tanks, capping melter, etc. Inspection certificate furnished. Can remain present Michigan location. Gleanings Box 293, Medina, Ohio.

FOR SALE—12 hives of bees, 1½ story, at $13.00; 60 extracting supers at $1.50; 5 queen mating hives at 90c; 15 1-lb. box supers at $1.00; 27 hives drawn comb at $5.25; 3 4-frame nuclei hives at $1.25; 4 glass display hives at $2.00; 6 glass supers at 75c. 2 2-frame extractors at $10.00. Extra equipment, lids, bottom boards, wax, everything for $400.00. E. Jolley, R. D. 5, York, Pa.

MISCELLANEOUS

CYANOGAS— a dust, 5 pounds, $2.25 f.o.b. Boulder, express. Bell Feed and Seed, 1117 Pearl, Boulder, Colo.

RAZOR BLADES, surgical steel double-edged for old and new razors, $1.00 per hundred postpaid, money-back guarantee. Scheffield Products Co., Box 754-G, Lansing, Michigan.

COMPLETE COLONIES with 60 lb. of honey for winter at $10.22; Jumbo supers with comb at $2.00. Inspection certificate furnished. John C. Panzer, Tekamah, Nebraska.

SITUATION WANTED

POSITION WANTED: Position as Bee Inspector or will work for reliable beekeeper in South this winter. Experienced. R. W. Roth, Silver Lake, Ind.

HELP WANTED

WANTED—Strong man as helper with bees, 23 yards. Ray Wilcox, Odessa, N. Y.

SUPPLIES

ATTENTION BEEKEEPERS IN MINNEAPOLIS and adjacent states. We offer a real service on Lewis-Dadant Supplies, honey containers, and labels at a price saving to you. Top market price paid for extracted honey and beeswax. HONEY SALES COMPANY, 1806-08 NO. WASHINGTON AVE., MINNEAPOLIS, MINNESOTA.

SEEDS

SEEDS OF HONEY PLANTS. Send for our list describing 45 nectar bearing plants. Pellett Gardens, Atlantic, Iowa.

PLANT 2-year ANISE HYSSOP plants now this fall and have full nectar bloom first season. 5 for $1.20; 20 for $4.40 postpaid. Moss packed. Write for illustrated Folder listing 72 nectar and pollen varieties of rooted plants, vines, trees, and shrubs moss packed. NICOLLET COUNTY NURSERY, St. Peter, Minn.

MAGAZINES

DAIRY GOAT JOURNAL—introductory six months, $1.—Columbia 144, Mo.

THE INDIAN BEE JOURNAL—The only bee journal in India. Sample copy against 25c (1s 6d.) postage stamp. Yearly 7s, 6d, ($1.50) International Money Order. Apply Bhupen Apiaries (Himalayas), Ramgarrh, Dist Naini Tal, U.P. India.

DO YOU FIND it difficult to secure information about sheep and sheep ranching methods? The SHEEP AND GOAT RAISER reaches more sheepmen with more information on range sheep than any other magazine published. Subscription — $1.50. Hotel Cactus, San Angelo, Texas.

Three-Banded Italian Bees

Whether it is for requeening or to make increases, you want good young bees and young laying queens.

You moy expect service, satisfaction, and fair prices when you order from me.

Prices for balance of season:

2 lb. pkg. with queen	$2.75
3 lb. pkg. with queen	3.65
Queens in lots of 100	.50
Queens, each	.60

Farris Homan
Shannon, Miss.

RICH'S Leather Italian Queens

We now have direct Air Mail service direct from our yards to all major Air Ports in the U.S. and Canada. 24-hour

Regular Stock,—1 to 24, 80c; 25 to 99, 75c; 100 up, 70c.

Disease Resistant—1 to 24, $1.30; 25 to 49, $1.25; 50 up, $1.20.

We are now booking orders for 1949 shipment.

The Rich Honey Farms
JEANERETTE, LA.

MOORE'S STRAIN

Away back in 1879 I commenced rearing Italian queens with the object of improvement constantly in view. By careful selection during all these years I have succeeded in producing a strain of three-banded leather colored Italian bees known as Moore's strain of Italians which has won a world-wide reputation for honey gathering, hardiness, gentleness, etc.

Send for descriptive circular and read reports from those who have tried them. Untested queens, $1.00 each; 12 or more, 75c each.

J. P. Moore, Falmouth, Ky.
Route 3
Former Address: Morgan, Kentucky
Safe arrival and satisfaction guaranteed.

QUEENS

Dark Three-Banded Italians
$1.00 each in lots of 1 to 10
$0.75 each in lots of 10 or more

A. M. Peach
Baldwyn, Miss.

Protect your future. Buy your extra Savings Bonds Now.

The John M. Davis Strain Italian Queens

Bred the Davis Way

These queens are reared in Nucs with three full-depth standard frames of brood, bees, and honey; no baby nucs used. They are well fed from time of hatching until mated and laying, making stronger, larger, fully developed queens. Try them; you'll like them or your money refunded.

Price $1.00 each
Write for quantity prices

Little's Apiaries
P. O. Box 122
Shelbyville, Tenn.

CAUCASIANS

Extra gentle, prolific, long tongue, little inclined to swarm, dependable workers—10% to 40% ahead of the average Italians. Foundation stock from the mountainous region of Terek, Caucasus.

CARNIOLANS

Build up rapidly even during unfavorable springs. Prolific at all times, very gentle, best of workers. September is a good time to requeen for next season.

PRICES: Untested queens ..... $1.00 each
Tested queens ..... 1.75 each

Queens by Airmail,4c extra per queen

Albert G. Hann, Glen Gardner, N. J.

Italian Queens

From Quebec

Very well acclimated for any country. You will save honey for your winter colonies with such queens.

Price: $1.35 each

Jean-Louis Bechard
7996 rue Boyer
Montreal, Canada

JACKSON APIARIES

Funston, Georgia

Three Band Italian Bees and Queens For Sale in 1949

Protect your future. Buy your extra Savings Bonds Now.

THE BEE WORLD—The leading journal of Great Britain and the only international bee review in existence. Specializes in the world's news in both science and practice of apiculture. Specimen copy post free. 12 cents stamps. Membership in the Club including subscription to the paper, 10/6. The Apis Club, L. Illingsworth, The Way's End, Foxton, Royston, Herts, England.

MISCELLANEOUS

"CONCRETE BLOCK HOMES", 32-page booklet, drawings, instructions on how to build, $1.00. H. C. Lightfoot, Civil Engineer, Richboro 19, Penna.

Queen numbering machine made in Switzerland. Very good for queen selections, also to control swarming. Price, $7.50. Jean-Louis Bechard, 7996 Boyer, Montreal, Canada.

WANTED TO BUY

WANTED TO BUY: A small or medium size Southern package bee outfit. Box 8, Gleanings, Medina, Ohio.

STOLLER'S Fine Quality Clover Honey, 1948 crop, excellent for bottling. Stoller Honey Farms, Latty, Ohio.

OLDEST BEE JOURNAL IN THE ENGLISH LANGUAGE

Keep up on markets, practices, scientific data, regulations, and plant possibilities.
1 year, $2.00, U. S. and Canada
Foreign postage 25c a year extra

AMERICAN BEE JOURNAL
Hamilton, Illinois

MICHIGAN STATE SUMMER MEETING

(Continued from page 565)

great difference in the honey crop. Prof. Potter sees a future for the black locust and says if it is grown extensively for fence posts, the honey yield will be materially increased.

Wash O'Brien, Michigan's capable soil conservationist, made some astounding statements. We are losing an acre of soil a minute by erosion. The depth of the top soil in Michigan, formerly nine inches, is now only five inches. Available nitrates are getting scarce again and the only answer for saving the soil lies in the legume. There are 50 crops at least that depend upon the bees for pollination. Mr. O'Brien deplored the fact that with "apple" queens and "peach" queens galore, there is never a clover queen — that with prizes offered 4H clubs for growing calves and almost everything else, there is never a prize for the growing of an acre of clover.

Above photo shows a part of our queen yards containing over 10,000 nuclei

Italian Bees and Young Queens

Get your package bees and queens when you want them Reserve 1949 dates now. Be safe. No deposit required for early booking.

	1 to 9	10 to 49	50 to 99	100-up
2 lb. pkg. with queen (each)	$4.50	$4.25	$4.15	$4.00
3 lb. pkg. with queen (each)	5.65	5.40	5.30	5.15
4 lb. pkg. with queen (each)	6.80	6.55	6.45	6.30
Queens (each)	$1.35	Tested	$2.00	

Large Queen Orders Solicited

Overbey Apiaries, Bunkie, La.

80 YEARS AMONG THE BEES

(Continued from page 575)

plenty of sealed stores, and it will be an advantage to have full-depth Langstroth hive bodies or sectional hive bodies so the bees can move back and forth, if Langstroth was correct, and I am absolutely sure he was.

Others are working on this problem. I have in my hand a new book written by E. B. Wedmore entitled "The Ventilation of the Bee Hive". On the front page is a picture of a Langstroth hive with an upper entrance. What Wedmore says about the importance of ventilation for allowing moisture to escape is in line with what I have written. Mr. Wedmore is from England where moisture is more abundant than in this country.

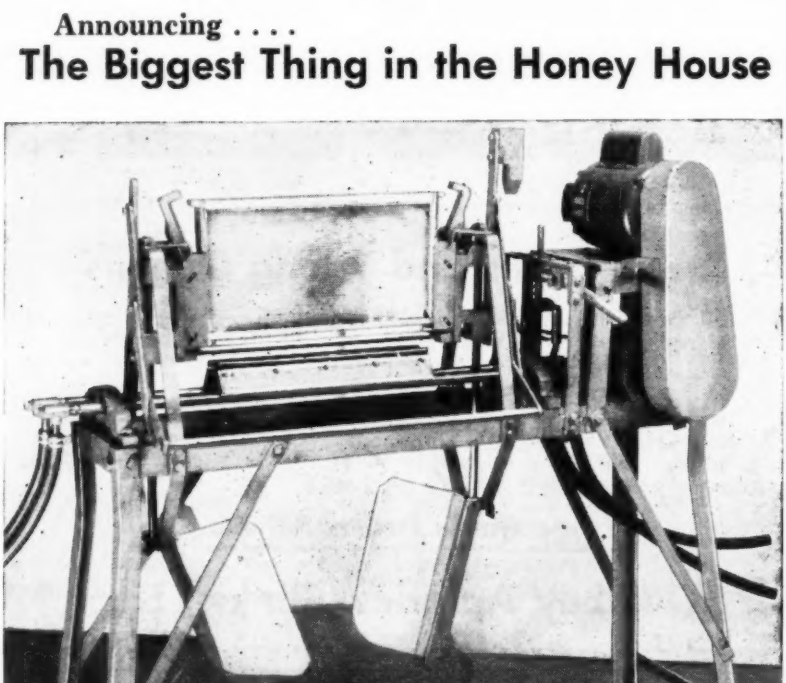
It is apparent that in many localities during the past severe winter there were long periods during which the bees could not fly and void their feces. Also many beekeepers extracted too closely, expecting a fall flow that did not come. Even so, aster honey is not safe if there are long intervals when the bees cannot fly. Many will come to the conclusion that the loss was due to no packing. If no means for ventilation was provided and moisture collected in the packing, insulation did more harm than good. If, on the other hand, means for escape of moisture had been provided, the packing would have been kept dry and there is no denying that dry packing has its value. Unfortunately many beekeepers neglected to provide proper ventilation.

Of course there are other factors than those above which cause heavy winter losses some years.

In the next issue I shall discuss these at length but I shall here enumerate a few of them: Too little honey, too small a force of bees, too little or no pollen or pollen substitute, early or late fall, too little or too much packing. It must not be forgotten that insulation rightly applied has value. Too much packing with no means for the escape of moisture other than a contracted bottom entrance does more harm than good, especially when packing becomes wet and freezes. During normal winters bees may have too little of above mentioned factors and still winter well.

Announcing . . . .

The Biggest Thing in the Honey House



The Stoller Twin Uncapping Machine

A definite answer to the uncapping problem

Thoroughly tested and proven Uncaps up to 250 supers per day

Send for descriptive folder

The A. I. Root Company Medina, Ohio

NOTES ON ILLINOIS, WISCONSIN, MINNESOTA-NORTH DAKOTA MEETINGS.

(Continued from page 569)

keeping by the legislature for disease eradication.

Dr. M. H. Haydak of St. Paul, Minn., referred to experimental work on wintering colonies out of doors in three groups, one with no packing, one with light packing, and one with heavy packing. Last winter group one had a 54 percent loss, group two a 33 percent loss, and group three a 7 percent loss. The abnormally heavy winter loss in 1947-'48 was due to long cold spells and short warm spells.

E. C. Martin of Winnipeg, Canada, Provincial Apiarist of Manitoba, said that 28 percent of the bees are wintered over and that it is perfectly possible to winter bees in that province. He prefers two hive bodies for each colony, with packing, and an upper entrance.

JUST NEWS

(Continued from page 585)

T. P. Gaskin, Secretary - Tresurer, Lykesland, S. C. Of special interest will be reports from the states on the effect that this first year's widespread use of the powerful new boll weevil poison has had upon bees, according to Clemson's extension bee specialist, E. S. Prevost. Many other practical matters of interest to the beekeeper will be discussed by authorities.—E. S. Prevost.

A RESOLUTION

WHEREAS, for the past several years the United States Department of Agriculture urgently requested that the beekeepers increase their holding for pollination purposes, which the Beekeepers did without exception;

AND WHEREAS, Honey was placed in the ceiling price basis during World War II;

AND WHEREAS, the price trend today is downward and in most districts has dropped below cost of production;

THEREFORE, BE IT HEREBY RESOLVED that the Rusk, Sawyer Beekeepers' Association of Wisconsin in regular meeting assembled in Ojibwa State Park urgently request that Honey be placed on a parity price basis along with other agricultural commodities.

(Signed) Robt. I. Knutson, Chairman
W. E. Chadwick
Sherman W. Weiss

OHIO SUMMER MEETING
August 18 and 19
By M. J. Deyell

Kelley's Island—What a Glorious spot for a summer bee meeting. Even heavy rain the first forenoon did not dampen the enthusiasm of the 250 or more beekeepers from Ohio, Kentucky, Louisiana, Alabama, Illinois, District of Columbia, Maryland, South Carolina, Wisconsin, Canada, France, and India.

"A Dream Comes True" was the subject of brief remarks by Chas. A. Reese, Extension Apiarist for Ohio, one of the moving spirits in the bee stock improvement project now under way, and Chairman or the program committee.

The Island, about 10 miles from Sandusky, Ohio, seems admirably adapted to bee breeding due mainly to favorable weather conditions and

(Continued on page 596)

Announcement!

The publication of this notice is to inform the public generally that that certain business enterprise, known as Jasper Knight & Sons, which business enterprise was owned solely by Jasper Knight, Hayneville, Alabama, deceased, in his lifetime, with its principal place of business at Hayneville, Alabama, has since the death of said Jasper Knight, been divided as follows:

One half of the assets of said enterprise have been taken over by S. M. Champion and the other half interest in said assets taken over by John T. Knight, and the business name Jasper Knight & Sons is hereby discontinued.

We wish to thank our many customers for their past patronage and favors.
Look for our individual advertisements in October issue of this magazine.

Respectfully: John T. Knight
Hayneville, Alabama
S. M. Champion
Hayneville, Alabama

Top Quality
Italian Queens
Summer Prices
1-10, $1.00 11-30, 90c
31-74, 85c 75 and over, 75c
Girardeau Apiaries
Tifton, Georgia

First Quality Italian
Package Bees & Queens
John S. Shackelford
Live Oak, California

Package Bees and Queens
Book your orders early for next spring now to be sure and get your bees when you want them. Write for prices and details.
Clover Bee Farms
HESSMER, LA.

XUM

Honey Girl Apiaries

Package Bees and Queens when you want them

Italian Bees and Queens

	1 to 9	10 to 49	50 to 99	100-up
2 lb. pkg. with queen (each)	$4.50	$4.25	$4.15	$4.00
3 lb. pkg. with queen (each)	5.65	5.40	5.30	5.15
4 lb. pkg. with queen (each)	6.80	6.55	6.45	6.30

Extra Queen, Untested, $1.35. Tested, $2.00. Any quantity.

W. E. Case, Proprietor Moreauville, La.

Requeening?

It's Time and It Pays

Plenty Select Italian

QUEENS

90c

100 and up 75c each

Puett Company

Hahira, Georgia

Italian Northern Queens

NOTICE: Breeding stock in our queen yard will average five supers of fancy comb honey per colony.

Remember: Always requeen by test and not by guess.

Untested queens, $1.00 each; tested, $2.00 each.

Northern Breeder Queens, $5.00 each.

Shipped air mail postpaid and clipped on request.

Prompt Service — Satisfaction

Barger Apiaries

Carey, Ohio

Italian Queens

Get our line bred Italian queens noted for their honey production, prolificness, gentleness, and vigor. 90c each

B. J. Bordelon Apiaries

Moreauville, La.

QUEENS

By Return Air Mail 60c

2-lb. Packages with queen $3.00
3-lb. Packages with queen 4.00

BRIGHT 3-BANDED ITALIANS guaranteed in every respect. Packages F.O.B. express.

Norman Bros. Apiaries

Ramer Ala.

Italian Queens

Miller's Strain

Three banded. Northern bred for business. 51st breeding season. Unt., $1.00; 6 for $5.50; Sel. Unt., $1.25

I. F. Miller

Warren, Pa. Rt. 3

Queens — Queens

Three Banded Italians

Best we can raise and prompt delivery
1 to 25 .....$1.00 25 to 50 ..... 95c
50 up 90c

Alamance Bee Company

Graham, N. C.

STOVER'S

A Name to Remember

QUEENS

Italian or Caucasian

Prompt, Courteous Service
on Any Reasonable Amount

Clipped and (or) Airmailed at No Extra Cost
Tested Queens Twice the Price of Mated

— Prices —

1 to 24	$ .95 each
25 to 99	.85 each
100 or more	.75 each

* * * * *

The Stover Apiaries, Mayhew, Mississippi

XUM

Jensen's Quality Queens

for Requeening "Right Now Service"

Don't let a single colony go into winter with a queen of questionable quality. The price of a good young queen is insignificant compared to the loss of a whole colony for the lack of one. A young queen introduced early enough to get in a cycle or two of brood to form the winter cluster, and going through the winter with vigor for the early spring build-up is a big factor in next year's management and success.

Prices: "Magnolia State" 3-Banded Italians
1-24, $1.00 ea.; 25-49, 95c ea.; 50 and up, 90c ea.

"Disease Resistant" Queens, Daughters of queens Tested in the North. Isolation Bred. — 1-24, $1.30; 25-49, $1.25; 50 and up, $1.20 each.
Pospaid. Via Air Mail if advantageous.

Jensen's Apiaries
Macon, Mississippi
The business "QUALITY" built

Now booking orders for 1949
Leather Colored Italian Queens and Package Bees
Write for Prices
LYNN WILLIAMS
Rt. 3 Oroville, Calif.

Queens of the Golden West
Buy Western-bred queens and package bees for best results. We are now booking orders for spring 1949.
CLIFTON APIARIES
Oroville Box 684 California

Gray's LAZ-LOTZ
Northern Bred Queens
will give your colony a NEW LOOK and New Life. Bright Italian Honey Getters. Order today, $1.10 prepaid.
William I. Gray
Prospect, Pa.
Shipping twice daily

JUST NEWS

(Continued from page 593)

remoteness from other bees on the mainland.

Dr. W. C. Roberts, formerly of the Madison, Wisconsin, Bee Culture Laboratory, now in charge of breeding on the Island, gave a demonstration of artificial insemination of queen bees.

Jas. I. Hambleton, U.S.D.A. Research Center, Beltsville, Maryland, explained some of the factors involved in a long-time scientific bee breeding program, emphasizing the fact that no problem in research is ever solved.

At present, says Mr. Hambleton, we must create a new concept of bees for those not interested. Farmers will some day give the best location on their farms to yards of bees—when they come to realize the value of bees to agriculture.

Harold J. Clay, Production and Marketing, U.S.D.A., Washington, D. C., said that there is considerable of a carry-over of honey from the 1947 crop. Beekeepers are not putting forth much effort to sell it. People will buy honey if it is brought to their attention.

C. A. Jamieson, Assistant Dominion Apiarist, Ottawa, Canada, reported an above-average crop this season throughout Canada—35,000,000 pounds from about 800,000 colonies, with a carry-over of 4,000,000 pounds from last year.

Prof. G. F. Townsend, O.A.C. Division of Bee Culture, Guelph, Ontario, referred to the bee breeding project started in 1945 on Pelee Island. He emphasized the desirability of cooperation between U. S. and Canada in bee breeding. It was suggested that a joint meeting of Ohio and Ontario beekeepers be held next season centering around bee breeding projects on the two islands which are not far apart.

The Annual Meeting of the National Federation of Beekeepers' Associations will be held in St. Louis, Missouri, December 13th and 14th at Hotel Statler.

Bees and Queens
Italians - Caucasians and Daughters of Queens
Bred for Resistance.
Over 30 Years a Shipper
Send for FREE Circulars
BLUE BONNET APIARIES
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One of the World's Leading Strains of Light Colored Italians

Lot	Queens
1-5	$1.55
5-15	1.50
15-25	1.40
25-100	1.35
100-up	1.20

Select Tested Queens, $5.00.
All Queens clipped and by airmail, postpaid.

Take Advantage of Late Season Discount — 25% off above prices. No discount on Tested Queens. Foreign orders 25c extra per queen.

After August 1st package bees will not be shipped except for experimental purposes, but queen bees will be available until November, weather permitting.

The Daniels Apiaries Picayune, Miss.

TANQUARY'S

Quality, Quantity, Experience, and Service in South Carolina

Without you we would never have all this to offer; we appreciate your good business. Let us have your order for prompt, or spring delivery. Spring prices will be out later. Place your package order now.

	1 to 25	26 to 50	51 to 100-up
Queens Postpaid	$1.00	90c	75c
Tested Queens Postpaid			$1.75 ea.

Tanquary Honey Farms, Inc., Lena, S. C.

Western Union, Lena, So. Car. Telephone: Estill, S. C. No. 109

Better Bred Queens **Three Banded Italians**

Plenty good queens from our famous Better Bred strains that have proved their merit for years. Replace all old and failing queens and watch them build up fast.

Queens, any quantity, 70 cents each Prompt Delivery

Calvert Apiaries **Calvert, Ala.**

Requeen with Quality Caucasians that Guarantee to Please

Do Not trust the welfare of your colonies to failing queens. A strong colony means profit to you.

Queens, each, $1.00

Health certificate furnished with every shipment and live delivery guaranteed.

Pine Bluff Bee Farms **Route 3** **Pine Bluff, Ark.**

(Caucasian Branch — Jesse E. Gooch & Sons)

Requeen Now with Gooch's Italian Queens

The queen that heads your colony this fall will determine the condition of your colony next spring. That is why it is so important to requeen now to produce the honey crop next year, that you have always dreamed of.

Prices: In lots of 1-25, $1.00; 26-50, 90c; 51-100, 85c.

Profitable Beekeeping Begins with Gooch's Queens

Jesse E. Gooch & Sons **Rt. 3** **Pine Bluff, Ark.**

Italian Queens

From Proven
High Producing Stock

Each 75c

Clipped and Airmail
at no extra cost

We wish to thank our customers for their consideration and co-operation. For you we wish a most successful season.

Geo. A. Hummer & Sons
Established 1892
Prairie Point, Mississippi
Wire or phone Macon, Mississippi

We Thank You,
One and All . . .

This has been the most satisfactory season from a delivery standpoint that we have ever had. Sure there was rain, even floods and wind, as well as other difficulties in connection with securing bees, such as feeding, detours, rough roads—even the trains did not run for several days from our shipping point, causing us more travel to other points where we could ship. Even so, we made the season with little delay and finished on schedule.

We are working now to supply you next year. Supplies are being ordered that there will be no holdup when the time comes.

Place your orders after December 1st for next spring delivery.

Rossman & Long
P. O. Box 133 Moultrie, Ga.

Three Banded
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Best of Quality
Prompt Delivery
1 to 25, $1.00 ea.; 25 to 50, 95c ea.
50 up, 90c ea.

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Dark Leather Colored
ITALIAN QUEENS
75cts. each
No charge for clipping
Air mail at regular prices
All queens mailed in our adjustable introducing cage.

Diemer Bee Company
Rt. 2 Box 7 Liberty, Mo.

Package Bees with Queens

While They Last

Italians

	1 to 9	10 to 49	50 to 99	100-up
2 lb. pkg. with queen (each)	$4.50	$4.25	$4.15	$4.00
3 lb. pkg. with queen (each)	5.65	5.40	5.30	5.15
4 lb. pkg. with queen (each)	6.80	6.55	6.45	6.30
Queens (each) $1.35	Tested	$2.00		

By Express — We Serve to Serve Again

May we reserve the date you desire for your shipment?

Sunny South Apiaries Marksville, La.

I. Clark, Proprietor

Garon's Quality Queens

3-Banded Italian Stock of Superlative Quality

These are TOPS Queens, Bred for Heavy Honey Production and Other Desirable Characteristics

Prices: 1-9, 85c; 10-24, 80c; 25-99, 75c; 100-up, 70c.

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Garon's D. R. Queens: From Finest Available Northern Bred and Tested Disease Resistant Stock

Do NOT confuse this stock with the old nervous fighting D. R. Lines. These queens are bred for Heavy Honey Production, Gentleness, and other desirable characteristics.

Prices: 1-24, $1.30; 25 to 49, $1.25; 50-up, $1.20.

(All Queens clipped if desired. Airmail on request)

For Good Strong colonies this Fall and next Spring requeen early with our Sturdy Stock.

Garon Bee Company, Donaldsonville, La.

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Gleanings in Bee Culture

Established 1873

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ROOT "QUALITY" BEEKEEPERS' SUPPLIES:

Materials are still scarce. Order your bee supplies now, or send us list of your requirements. We will advise you and quote prices when available.

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Send for our Money Saving Price List on bee supplies.

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POLLEN SUBSTITUTES

	5-lb.	10-lb.	25-lb.	50-lb.	100-lb.
Brewer's Yeast and Soyflour Expeller Mixed	$.75	$1.50	$3.25	$6.00	$11.00
Brewer's Yeast	1.50	2.75	5.50	8.50	16.00
Soy Flour		1.50	2.75	4.75	8.50
Skim Milk suitable for humans	1.50	3.00	5.50	11.00	21.00

Include postage if you wish it by parcel post. Allow 2 pounds for packaging.
All prices collect, Bainbridge, N. Y.
M. Y. S. COMPANY, Bainbridge, N. Y.

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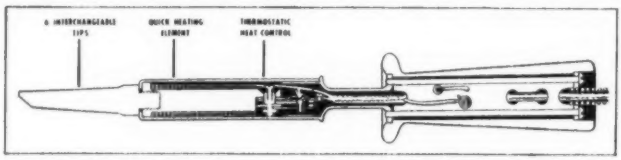

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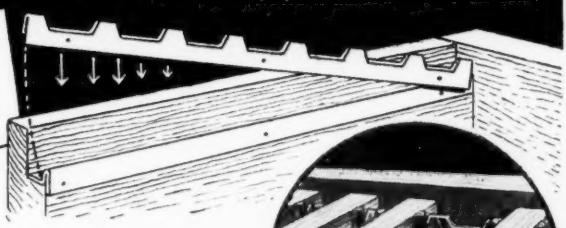

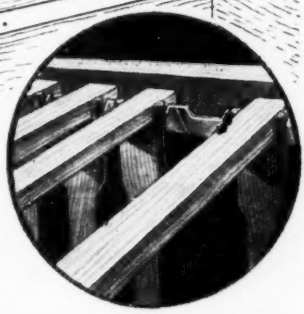

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8 oz. glass jars, carton of 24,	$.77
16 oz. glass jars, carton of 24,	.78
2 lb. glass jars, carton of 12	.52
3 lb. glass jars, carton of 12,	.59
5 lb. glass jars, carton of 6,	.48

All with white caps. Order glass 25 cartons, 2c per cartons less; 100 cartons, 4c less. 5 lb. Continental tin pails, carton of 50, $4.10; 10 cartons or over, each, $3.85. 5 gal. Continental tin cans, carton 16, $7.00; 6 or over, each $6.40.

Write for complete list of supplies

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The Leading Bee Journal of the Southern Hemisphere is the

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New Style Window Cartons

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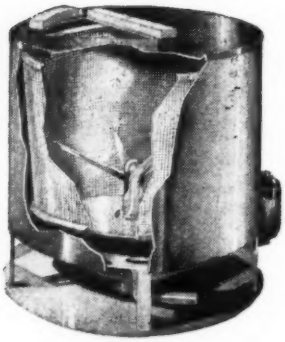

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"A Honey of a Money Maker"

The Diamond Spinner

Would you like an investment that will net you 100% per year—in addition to eliminating a hard disagreeable job? The stainless steel DIAMOND SPINNER, cappings drier deluxe, will do this for you if you operate 100 colonies or more. High quality steels and other metals are becoming increasingly scarce; may we suggest placing your order now to avoid delay and disappointment? Priced at $225.00 with motor. Shipping wt. 200 lbs.

The Diamond Match Company

1300 Produce Street, Los Angeles 21, Calif. or Apiary Department, Chico, California
Send for Catalogue of DIAMOND quality bee supplies

MACY ELECTRIC KNIFE

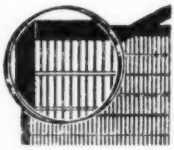
110-115 V — AC Only

This new knife heats in 15 seconds and maintains an even temperature by a thermostat mounted in the handle. Easily adjusted for slow and fast uncapping. Smooth operating in light or tough honey. Plastic handle designed to reduce fatigue.

Weight 14 oz. Price $12.00 Rubber cord $1.00 extra

Macy Electric Knife Company
1239 S. Lorena Street, Los Angeles 23, California

THE ONLY WORTHWHILE
QUEEN EXCLUDER
on the market



Chrysler's All Steel Electric Welded Queen Excluder allows maximum bee passage, better ventilation, more honey production. No wood, no sharp edges to injure bees, no burr combs. New rust proofing process. So durably made and accurately spaced that it is permanently Queen excluding and will last a lifetime. Sales increasing steadily each year. For earliest delivery place your order at once. Send for circular E-2.

W. A. CHRYSLER & SON
Chatham - Ontario - Canada

Price of Honey

September 21, 1948

The following figures represent an expression of current prices from beekeepers and honey packers over the country. They are based on several reports from each state averaged with the reports in the region. Where insufficient information is returned prices have been omitted from the chart. Where three figures appear on the chart the first figure represents the low, the middle figure represents the average, and the third figure the high price.

We shall be glad to have any one who desires to report for this column drop us a card and we will place your name on our list.

	No. Atlantic	So. Atlantic	Central	So. Central	West
Bulk Honey					
Table Grade	10-12-18c		10-13-17c		8-14-20c
Industrial Grade			8-10-13		3-11-16
Price to Grocers					
5 lb. jar or can	15-20-23	22-26	15-18-20	20-25	14-18-20
3 lb. jar (cs. 12's)		24-25			14-30
2 lb. jar (cs. 12's)		24-26-29			17-20-24
1 lb. jar (cs. 24's)	21-25-30	25-27-29	23-30	25-27	20-27 -
Comb Honey	$8.40-$9-$10.50	$9.00	$9.00-$10.00		$7.50-$9.60
Retail Price					
60 lb. can	13-15-17		15-17-20		15-17-25
5 lb. jar or can	20-27-34	25-30-40	19-25-30	25-28-35	15-22-32
3 lb. jar	22-33	33-40	23-31-43		
2 lb. jar		33-38	27-38		22-29-33
1 lb. jar	25-35-45	30-36-40	27-34-40	30-35	25-31-40
Honey Sales	**Fair**	**Fair**	**Fair**	**Slow to Fair**	**Slow**
Estimated Crop					
Conditions based on normal (%)	82	72	54	59	75

The average of the prices reported this month compared with those of a month ago show no material change. A few comments from beekeepers are as follows:

New Hampshire: "Stores still have too much high price honey so sale is slow. Direct Retail sales rapid. Chain stores ask 29c per pound for poor grade. Some producers as high as 50c a pound and $2.00 for 5 lb. jar."

New York: "Having bad drouth. Just home from Vermont and New Hampshire. Honey selling from 85c to $2.95 for 5 lb. pail."

Ohio: "Are retailing 1½ lb. pint jars chunk honey for 80c each. Very, very slow."

Indiana: "My bees to date have stored 200 lbs. per colony with a month yet to go."

Michigan: "Market unsettled. All kinds of prices prevailing."

Iowa: "We have practically a crop failure. No change in prices."

The general commodity market price as reported in the Journal of Commerce for some 30 sensitive commodities stands at 291 as compared with 295 a month ago. 1938 is figured at 100.

Glass prices advancing 10% October 1 as reported by several glass companies.

Requeening?

It's Time and It Pays

Plenty Select Italian

QUEENS

90c

100 and up 75c each

Booking orders for 1949 packages. Send $1.00 per package to hold date.

Puett Company

Hahira, Georgia

CARNIOLANS
CAUCASIANS

Both races very gentle, prolific, good winterers, wonderful workers. We can still supply some queens of these excellent races this month. **Prices: Untested queens, $1.00 each; tested, $1.75 each. By air mail 4c extra per queen.**

Albert G. Hann, Glen Gardner, N. J.

Package Bees and Queens

Book your orders early for next spring now to be sure and get your bees when you want them. Write for prices and details.

Clover Bee Farms

HESSMER, LA.

Modern Beekeeping

The picture magazine of beekeeping. We show you with pictures how to do the job easier, quicker, and better. Special inventor's page. 1 yr., $1.50; 2 yrs., $2.50; 3 yrs., $3.25.

Modern Beekeeping
Paducah, Kentucky

B & Z Library

Everything you need in Containers

at the lowest prices

5% discount on $50.00 orders
10% discount on $100.00 orders

GLASS

½-lb. jars, carton of 24, wt., 9 lbs., 72c
1-lb. jars, carton of 24, wt. 11 lbs., 84c
2-lb. jars, carton of 12, wt., 11 lbs., 55c
5-lb. jars, carton of 6, wt., 10 lbs., 49c

TIN

5-lb. pails, ctn. of 50, wt., 25 lbs., $4.26
10-lb. pails, ctn. of 50, wt., 44 lbs., 6.20
60-lb. cans, ctn. of 24, wt., 72 lbs., 10.67

Comb Honey Window Cartons (all sizes)

Per 100, $1.55; Per 500, $7.50; Per M, $14.25

We also carry a complete line of other Bee Supplies

August Lotz Co.

Boyd Wisconsin

Protect your future. Buy your extra Savings Bonds now.

Root Service from Chicago

In Nineteen Forty-Eight

Honey Containers

Plan ahead. Order early the supplies you will need. We have now in stock most of our listed items.

Beekeepers' Supplies

Root Quality. The best hives, supers, frames, sections, foundation, all equipment, bees, and literature.
Glass and Tin — Best makes jars, cans, pails, all standard sizes.

Beeswax

Good average and Light Yellow. We want it—highest market prices—cash or trade.
Ask for our bee supply price list. Ask for our container price list.

A. I. Root Co. of Chicago
224-230 West Huron Street
CHICAGO 10, ILLINOIS

WANTED: Comb Honey in Supers

Supers to be returned to producer in best of condition.
State quantity and best price.

T. W. Burleson & Son, Waxahachie, Texas

Our National Federation

It is serving beekeepers throughout the U.S.A. through the following committees:

(1) Honey and Pollen Plants Committee.
(2) Agricultural Relations Committee.
(3) Honey Grades Committee.
(4) Bee Breeders' Committee.
(5) Standardization of 5-gallon Can Caps Committee.
(6) Research Committee.

Help yourself by giving moral and financial support to our National Federation.
Send contributions to:

Sec.-Treas. Glenn O. Jones, Atlantic, Iowa.

Decorated – New Style

Combination — Display & Shipping Case
For 24 Beeway Size Window Cartons

Per 25	$4.50
Per 50	8.50
Per 100	16.00

A Pleasing 2-Color Design That Matches Our
For-Goodness-Sake-Eat-Honey Window Cartons

A. G. Woodman Co., Grand Rapids 4, Mich.

G. B. Lewis Wooden Goods!
Dadant's World Famous Crimp Wired Foundation. — Their 85 years' experience is your safeguard. Catalogue on request.

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Indiana Headquarters for Root Bee Supplies
Save Time and Money
Send Orders to
The A. I. Root Co.
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STEEL DRUMS FOR HONEY
Ship your honey in Steel Drums (no leakage in transit).
DRUMS FREE TO OUR SHIPPERS. WRITE US.
THE FRED. W. MUTH CO.
229 WALNUT STREET CINCINNATI 2, OHIO

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Containers

Our fall price list is yours for the asking. It describes a full line of honey containers and selling helps.

Honey jars, 8-oz., 1-lb., 2-lb., 3-lb., 5-lb., 10-lb., all fine, clear glass. Included is a new 5-lb. wide-mouthed, square-shaped, clear glass jar for packing that bulk comb honey that is now selling so well; beautiful white enamel lids; available only while the supply lasts. - - Tin containers, 5-lb., 10-lb., 60-lb. - - Honey handling equipment, filters, clarifiers; packaging and marketing equipment; honey signs; honey servers.

Send for free copy of complete fall price list

Honey Labels

Our label catalog is unusual in that every label sample is a full sized and separate label all ready for you to try on your containers. You can see just how each label looks and how it appeals to you. There are dozens of labels in all sizes, shapes, and colors; some in series of the same design for all sizes of glass and tin. Included is a new multi-colored lithographed label in seven sizes. Also labels for maple syrup and for sorghum. Free label catalog on request.

DADANT & SONS - Hamilton, Illinois

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